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Processo de Ensino das Artes Visuais – Um Caso de Estudo

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Tese apresentada à Universidade de Aveiro para cumprimento dos requisitos necessários à obtenção do grau de Mestre em Criação Artística Contemporânea, realizada sob a orientação científica da Prof. Doutora Inês Maria Henriques Guedes de Oliveira, Professora Auxiliar do Departamento de Comunicação e Arte da Universidade de Aveiro.

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Thesis presented at the University of Aveiro in order to fulfill the requirements for obtaining a Master's degree in Criação Artística Contemporânea, supervised by Prof. Doutora Inês Maria Henriques Guedes de Oliveira, Professor of the Department of Communication and Art of the University of Aveiro.

To the loving memory of my father.

O Júri

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palavras-chave Arte na Educação, Processo de Ensino, Actividades de Artes Visuais, Desenho, Pintura.

resumo Nesta dissertação foram feitos estudos, observações e análises sobre o processo de ensino das artes visuais (desenho e pintura) no Colégio Oceanus, em V. N. Gaia, Portugal, no contexto de estágio com a duração de três meses. A instrutora de arte responsável pelas aulas que foram presenciadas, com alunos entre os sete e dez anos de idade, Professora Fernanda Santos, segue a metodologia projectual semelhante à "Metodologia Projectual" de Munari na concepção do plano de educação artística (actividades de desenho e pintura) que aplica.

keywords Arts in Education, Teaching Process, Visual Arts Activities, Drawing, Painting.

abstract In this thesis, we studied (i.e., observed and analysed) the teaching process of visual arts activities (i.e., drawing and painting) in Colégio Oceanus, V. N. Gaia, Portugal, in the context of my 3-month internship. The Art Instructor for the classes of students (i.e., 7 to 10-year-old) that I attended was Ms. Fernanda Santos who followed the projectual methodology like the “Projectual Methodology” of Munari in the design of the artistic education plan (i.e., drawing and painting activities) that she applied.

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1 Introduction

1.1 Motivation

After my graduation from the Department of Civil Engineering, School of Technological Applications, Technological Educational Institute of Patras, Greece, I had the intuition that the Engineering course was an interesting experience but not the ideal field for my personality and specifically for my human potential. Thus, I realized that I would like to continue my studies in a field of study that I always fell in love with. During the first year of my Masters in Contemporary Artistic Creation, through the process of developing my own projects, I relied on the mediums of Drawing and Painting. Suddenly, I was persuaded that all those curriculum hours of my life that I spent at primary and secondary school never gave me the opportunity and the voice to express myself and develop my skills through my artistic capacities. This new awareness was of vital importance when the time came for me to choose my research topic. Since then, my intention was to focus my research in Arts in Education.

In this area of interest (i.e., Arts in Education), my objective is to obtain the background and the skills which will allow me to use Art for educational purposes. Particularly, I intend to use the plastic arts to help children express themselves through the beautiful experience of art activities at primary school. In addition, I agree with the position that the arts in education stimulate the creativity of the students so that they can later successfully address future challenges in their lives and their careers. Therefore, I would like to gain knowledge from the field of Arts in Education and to study how I can apply my knowledge and skills to the enhancement of contemporary society and culture.

Art in the context of education has often been underestimated. So, I personally wanted to understand and record the reasons why art is important, as we can identify many children's weaknesses through artistic processes such as lack of autonomy or self-confidence when they are called upon to run a project in school. The hours devoted to art in the school become a reason to create a specific space and time within which the educator and the child can work together. The child will have the opportunity to learn by following the teacher’s instructions. The time spend in the artistic studios, which includes aesthetics, critique, history of art and creation-act becomes a bridge of interaction between student and teacher where different perspectives and issues can be developed. Each child has a different personality and has different needs to deal with in his/her

everyday life at school, at home or in a small group of his/her friends. All these moments are direct stimuli for the development of the kid's ideas and thoughts.

The artistic hours in the school are most often seen as relaxation time in a strict curriculum. I believe that all artistic educators should take advantage of this aspect of art and transform it into a prerequisite for bringing new issues for discussion and new ideas to the surface. Children's ideas need to be strengthened and cultivated beautifully, treated as if they were small flowers.

1.2 Thesis Concept

Since the beginning of digital revolution, we live in an image-saturated world where new-born babies are shown videos, young students spend more time in front of a screen (i.e., computer, tablet, cell phone) rather than in front of a teacher, and the television plays an important role in children's daily activities (Fox & Schirrmacher, 2011; Freedman & Stuhr, 2004; Gompertz, 2015). On the other hand, the demands of modern life keep growing. Hence, each individual has to be prepared to cope appropriately with the demands of the modern society in such a way that the individual will be able to control reality instead of being controlled by it. Consequently, individuals need to develop their overall capacities (i.e., abilities, operations) since they are school-aged. However, this should be reinforced by all the participants of the educational community (e.g., parents, educators, teachers and social community). By developing the capacities with which we were born, we develop skills that enable us to become independent personalities able to learn, understand ideas, plan, solve problems, and use language to communicate (Barnes, 2015; Eisner, 1972; Guilford, 1977; Kamp, Admiraal, Drie, & Rijlaarsdam, 2015).

A comprehensive arts education offers a rich and engaging curriculum that develops students' abilities to think, reason and understand the world. It provides students with opportunities to respond, perform, and create in the arts. The arts instil in students the habits of mind that last a lifetime, namely analytical skills, problem solving skills, perseverance and a drive for excellence. Through artistic activities, students learn to think independently and obtain self-esteem and self-confidence that helps them to find their own ideas for problem solving (Barnes, 2015; Eisner, 1972; Gompertz, 2015; House, Éireann, Foster, & Cliath, 2009; E Winner, 1993).

In particular, a visual arts curriculum can provide students with opportunities to explore, express and experiment with ideas and to investigate the possibilities of a large spectrum of materials and processes, through drawing, paint and colour, print, clay, construction, fabric and fibre. Making

and creating art can enable students to explore their own experiences, stories, drama, music or activities. Students can achieve that either by working on their own or collaborating with others, exploiting a wide spectrum of media, materials and processes (House et al., 2009). Furthermore, a visual arts curriculum can allow students to experience the work of artists and to appreciate the visual world through looking and responding to art. Both can be done within the classroom and by visiting exhibitions or galleries. Besides, it is worthwhile to mention that as students develop an awareness of their visual, spatial and tactile environment they can also learn to appreciate the interplay between art and the environment. Moreover, a visual arts curriculum can also contribute to student's self-esteem and personal sense of empathy (House et al., 2009). Therefore, visual arts in education can play a crucial role in improving students' capacities by developing main skills, namely problem solving, creative thinking, creative act, imagination, idea generation, handling of space, observation, self-expression, appreciation and pictorial composition (House et al., 2009; Hurwitz & Day, 1995).

Hence, in this thesis, we observed and analysed the teaching process of the visual arts activities (i.e., drawing and painting), by conducting participatory action research (Mertler, 2006), in Colégio Oceanus, V. N. Gaia, Portugal, in the context of my 3-month internship. The responsible teacher for those classes of students (i.e., 7 to 10-year-old) that I attended was the Art Instructor Ms. Fernanda Santos who followed the projectual methodology, like the "Projectual Methodology" (Munari & Vasconcelos, 1981; Perrone, 2016) in the design of the artistic education plan (i.e., drawing and painting activities) that she applied.

1.3 Thesis Structure

The Introduction, or **Chapter 1**, presents the context in which this study was developed and the main activity developed during the internship period at Colégio Oceanus, V. N. Gaia, Portugal, the structure around which the present report is organized, and finally sets out the objectives around which this work was developed.

Chapter 2 presents the theoretical framework of this study, which is comprised by the main authors who have argued about the connections between Artistic Development and Intellectual Development, by the description of "Projectual Methodology" by Munari, which is like the projectual methodology followed by the Art Instructor of Colégio Oceanus, Ms. Fernanda Santos and by the appropriate teaching methods that should be applied in the studio.

Chapter 3 explains that this study is based on empirical evidences and specifically the methodological approach adopted is that of qualitatively based research. Firstly, it presents the purpose of this study which is to observe and analyse the teaching process of visual arts and to understand the potential development of some of the students' skills furthermore. Secondly, it explains my active role in the studio as a participant and as observer. Thirdly, it presents the adopted methodology with a case study, as it studies a particular school and some students of this school acting in the art studio. Finally, it describes the techniques (i.e., fieldnotes, photos) which were used for the qualitative data collection.

Chapter 4 encompasses the philosophy and the role of Colégio Oceanus, the theme of the College's project (i.e., "I, we and others – everything we are and do transforms our Being and the Other") and its objectives for the 2016-2019 triennium. It also includes the curricular contents to be developed in the class, the art studio of Colégio Oceanus and its objectives, the art instructor Ms. Fernanda Santos of Colégio Oceanus and the students of Colégio Oceanus.

Chapter 5 introduces what the education activities in visual arts (i.e., perspective activities, manipulative and experimental activities and activities of communication and expression) should be like before the presentation of chapter 6, which is about the report of the activities in Colégio Oceanus.

The Report of the Activities, **Chapter 6** of this study, presents my personal observations and reflections about the seven artistic sessions which I assisted throughout the internship period, which took place in Colégio Oceanus, V. N. Gaia, Portugal. At the end of this chapter, some general reflections, related to all the artistic sessions, are presented (i.e., the sketchbook, the importance of exhibiting students' artworks, the visual arts activities as a process of facing various issues).

Finally, the Conclusions and Future Research Directions, **Chapter 7**, show the results which came out from the whole process of observing the visual arts activities while doing the internship in Colégio Oceanus and from my study focused on various theories and authors given by my supervisor and by the art instructor Ms. Fernanda Santos. Moreover, it shows potential future research directions which emerged through this thesis study.

The **Appendix** shows some historical facts about artists (i.e., Auguste Rodin, Paul Klee, António Teixeira Lopes and António Soares dos Reis), which make part of the process of the artistic sessions I observed in Colégio Oceanus.

1.4 Objectives

The main objectives of this Master Thesis are the following:

- To observe the design of visual arts activities that will enable school-aged students to develop further their skills.
- To analyse the teaching process of the visual arts activities (i.e., drawing, painting activities etc.) in the classroom and provide a detailed description of them and of their teaching process.
- To learn and acquire a set of guidelines for the teaching process of visual arts activities to school-aged students in an efficient and effective manner so that students can further develop their skills.
- To get familiar with the philosophy of working in the education sector of a school such as Colégio Oceanus, which is a prestigious school in terms of the high-quality learning experience provided to each student. In Colégio Oceanus visual arts are strongly valued, throughout the Curriculum, as a means of the overall development of the individual.

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2 Theoretical Framework

2.1 State of the Art

The theoretical framework of this Thesis is based on the following works which also comprise the main references of the Art Instructor Ms. Fernanda Santos' teaching process.

The perceptual psychologist Rudolf Arnheim (Arnheim, 1969), the professor of Art Education Arthur Efland (Efland, 2002), the professor of Art and Education Elliot Wayne Eisner (Eisner, 1998), the developmental psychologist Howard Gardner (Gardner, 1993) and the art psychologist Ellen Winner (Ellen Winner, 2016) have argued about the connections between Artistic Development and Intellectual Development.

"Any idea that ignores the necessary role of intelligence in production of works of art is based upon identification of thinking with use of one special kind of material, verbal signs and words. To think effectively in terms of relations of qualities is as severe a demand upon thought as to think in terms of symbols, verbal and mathematical. Indeed, since words are easily manipulated in mechanical ways, the production of a work of genuine art probably demands more intelligence than does most of the so-called thinking that goes on among those who pride themselves on being intellectuals."

John Dewey (Eisner, 1972, p. 113)

In other words, Dewey suggested that the problem of selecting qualities and organizing them so that they function expressively through a medium is a consequence of intelligent decision making in the realm of qualitative (Eisner, 1972).

John Dewey advanced the idea that intelligence was not the amount of a personal's intelligence in the cortex but the quality of an activity with worthwhile ends. Which is to say that intelligence when properly conceived was a type of action, not a quantity of something that someone takes control over a person's mind. For Dewey, intelligence was the way in which someone dealt with a situation that was problematic. Eisner argued that if we apply this general conception to the artistic activity we will see that the child who draws, paints or sculpts deals with a problem and always tries to figure out ways to transform an idea, an image or a feeling into something material. Specifically, the child faces a white sheet of paper where he must articulate a vision that conveys what he intends. In addition, he/she must respond to the consequences of his/her actions with material and must manage that material so that it functions as a medium. Also, the

child must be aware of the incidents that inevitably occur in the act of creation and above all confront the problem of developing a sense of unity and a work of effectiveness so that his/her creation works well as a whole. Hence, a large number of interactions appear among the visual qualities when the children engage in the art processes. As the artistic activities deal with the visualization of qualities (the visual images) and are directed at the creation and control of qualities (colour, line, shape, and so forth), is a form of intelligence that functions in the domain of qualitative. Hence, artistic activities can be conceived as qualitative intelligence (Eisner, 1972).

In (Arnheim, 1969), Rudolf Arnheim argues about the important role of art education in children's artistic development. In (E Winner, 1993), Winner explains that if someone studies (Arnheim, 1969), then he can no longer think of visual arts education as a luxury, but as a fundamental element, since it stimulates creative and emotional development. Arnheim rejects the traditional split between seeing and thinking and tells us that art is a form of visual thinking. If someone paints or draws it means that he has grasped the essential structure of an object and tries to represent it. Grasping the underlying structure of an object (e.g., tree, person, head, etc.) is an active, cognitive process that includes selection and problem solving. In addition, according to Arnhem in (Arnheim, 1969), drawings and paintings "translate finished thoughts into visible models" and also serve as "aid in the process of working out solutions of problems". Moreover, Arnheim presents the series of problem-solving steps that Picasso took in Guernica, in his anatomy of the development of Guernica.

Besides, regarding children's drawings, Arnhem argues that they are not awkward attempts to draw what they see, but they are attempts to show the relevant structural features of what children are trying to draw. Based on Arnhem's analysis, children's drawings vary from adults' ones in that the underlying structure that children show is vastly simpler than the one shown in adults' drawings. Furthermore, Arnhem argues that children's drawings are intelligent and original attempts to find a two-dimensional structural equivalent of what is perceived in three-dimensional space (E Winner, 1993).

In (Gardner, 1993), Gardner's idea of Multiple Intelligences includes the uses of Spatial Intelligence and the Visual-Spatial Arts. Gardner argues that in professions such as sculptor, architect or painter the visualization is necessary. Thus, such domains need to develop spatial intelligence as a way of thinking, a way of capturing information, a way of formulating problems or a way of solving problems. All visual arts demand the combination of sensibility (to the visual and spatial world), the ability to recreate a work of art (memory and analysis) and other

intellectual abilities such as ease in the control of fine motor movement. Gardner supports Rudolf Arnheim's argument that all painters representational or abstract ones are sceptical about the way they will reflect their forms, since the forms are of great importance to them. Artists struggle with many different aspects of the perceptual world. For instance, painters of the Renaissance needed to memorize the external world and then reflect it into the canvas. When the painters did not have a good memory, such as Michelangelo, they needed to practice to observe deeply (i.e., Leonardo forced his painting students to think quietly with a reflective eye, while looking at the cracks on an old wall in order to discover forms). Another aspect of the Spatial Intelligence was that the artist had to generate an idea by looking at an image. That was a struggle between the image and the idea. Moreover, another task of the art is the organization of the elements of art according to the principles of art (i.e., compositional elements). The above combination is called by Gardner as "activities of the connoisseur". *Connoisseur* means looking at art, enjoying art, recognizing styles and evaluating art. According to Gardner's studies, young children can obtain *connoisseur* to learn to look at a subject holistically, through the qualities of the brushstroke and the texture which define a master's style (Gardner, 1993).

In (Eisner, 1998), Elliot Eisner argues that all humans are born with brains, but our brains are shaped by the influence of our culture. Children basically develop their brains at primary school. At this point, primary school plays a decisive role in the cultural development of the child's mind. According to Eisner, one of the most important priorities of the school should be arts as they contribute to the child's educational development. Eisner explains the importance of the arts at schools' curriculum regardless of the child's age. Firstly, he believes that the school's general purpose is to teach children that each problem or question has a single answer, the correct one. The children are taught to follow particular rules. However, through art lessons children learn that there are many different solutions that correspond to a single problem. They have the opportunity to think imaginatively from multiple perspectives and interpret the world their own way. In addition, art enables children to discover a form rather than determine it and categorize it. For example, the sky in art lessons does not have to be determined as light blue. But students explore its content. Experience the sky in green, gold, red colour or even a variety of blues. In the arts, the form of a thing is related immediately with its content. There is no dichotomy between content and form. Furthermore, the artistic activities do not have the purpose of achieving a particular goal but are a process that is a continuous development. It is a constant discussion between the creator and the work of art. The artists cannot predict what is going to happen later in their work. Eisner refers to the art lessons that are being taught nowadays at schools and which

are based on intelligent corporations. These corporations intend to solve complex problems by thinking flexibly and exploiting every opportunity that appears without predicting absolute solutions and set particular goals. Moreover, Eisner considers the arts as fundamental because of their critical functions, such as expression and discovery. Forms of arts represent people's feelings expressively. Besides, the discoveries that can occur through the artistic activity process enables students to obtain human experiences of the world, personal feeling, and imagination.

In (Efland, 2002), Arthur Efland creates a picture that represents various theories of cognition. Combining these cognitive theories, he raises an argument; Art Education is necessary in the general education curriculum. Efland argues that the learner understands a work of art only if he obtains knowledge. That is why he calls the artworks context-bound creations. By obtaining knowledge and by interpreting a work of art, the learner develops a cognitive strategy. In this sense, a mind which creates strategies to understand various domains of knowledge and mixes all these domains of knowledge together into coherence, enables itself to create maps and models of the world. Efland considers this mind as a flexible mind. The flexible mind entails an imaginative mind which is people's most important tool to trigger the creation of new ideas or images by joining and by disarranging previous experiences. Despite the fact that the imaginative mind is an important tool, Efland considers it is appropriate for the learner to firstly obtain some cultural knowledge such as language, mathematics and works of art and secondly, to obtain artistic and imaginative development. In addition, Efland connects the artistic development with cognitive development. He initiates by presenting the research in Jean Piaget´s cognitive developmental theory and Lev Semenovich's theory Vygotsky and ends with his own argument that "visual perception is visual thinking and art making is a kind of visual problem solving" (Parsons, 1998).

Twenty years ago, the art psychologist Ellen Winner wanted to challenge the idea that studying the arts could raise academic grades and test scores (Hetland, 2013; Ellen Winner, 2016). She started a series of analysis with her colleagues. The purpose of this analysis was to determine if there was any evidence that studying the arts raises academic grades and test scores. They gathered all published and unpublished data on this topic generated since 1950. Thus, they found no evidence for the causal claim that art education boost test scores. However, they found a correlational connection. Students who take a lot of art classes have higher test scores than students who take fewer or no art classes. But that was not a causal connection, that was a correlational connection. There are all kinds of possible explanations besides causality. For instance, students may come from families which value academics and the arts and push their

kids to do well in both. When Winner and her team published all this information, people in the arts advocacy world and the arts foundation world reacted negatively to these arguments. They thought that all these arguments would ruin quality arts education for the children in America. Hence, Winner and her team decided to go to visual arts classes and look at what was being taught and what was being learnt. They randomly selected the visual arts activities to observe and analyse. According to Winner, they could have picked up any kind of art form. They focused on videotaping and interviewing the visual arts classes through a whole year. And then they spent another year coding their videotapes. Consequently, they came up with a framework of the kinds of broad habits of mind that they believe students are learning from the arts which have nothing to do with test scores. So, these habits of mind include things such as (Hetland, 2013):

- Learning to look closely.
- Learning to envision which means to generate mental images.
- Learning to reflect because in art classes students always have critique sessions where they must learn to evaluate their own work and others work and they also have to talk about the process that they used in creating the work of art.

Therefore, a lot of metacognitive skills are being trained so that students learn to:

- persist because projects take a long time; they are not one-shot worksheets.
- stretch, explore, take risks, muck around and try to discover things.

So far many art teachers have been teaching these metacognitive capacities through their practical art sessions. However, thanks to Winner and her team's contribution there is also evidence showing the real benefits of visual arts education (Hetland, 2013), (Ellen Winner, 2016).

2.2 Projectual Methodology

According to (Hurwitz & Day, 1995), in principle, teaching methodology begins even before the students enter the art room. The art instructors should prepare their studio rooms in such a way that includes many signals. It is important for teachers to be able to put themselves in the student's place and organize the studio under those circumstances which would direct their thinking and their attitudes. They should create an environment which will consist of excitement, rich visual stimulation, well organized, cleaned and right for the occasion. The art teachers should display reproductions of artworks and natural objects such as flowers, driftwood, or plants and should also avoid commercial giveaways (Hurwitz & Day, 1995).

The responsible teacher for the classes of students (i.e., 7 to 10-year-old) that I attended was the Art Instructor Ms. Fernanda Santos. By observing and analysing the artistic activities I consider that Ms. Santos follows a methodology similar to the "Projectual Methodology" by Bruno Munari in the design of the artistic education plan (i.e., drawing and painting activities) that she applied. Below I analyse the process of finding a solution to a problem, according to Munari's Projectual Methodology (Munari & Vasconcelos, 1981).

The first and most important thing to do is to **define the problem** holistically. Therefore, it is necessary to start with the definition of the problem, which would also serve to define the limits within which the designer should work. Munari presents the problem of designing a lamp as an example. It would be necessary to make clear if it is a table lamp or a wall lamp, a desk lamp, a living room lamp or a bedside lamp. Whether it will be incandescent or fluorescent or any other kind. And many other questions such as the price or the distribution. In other words, it is of utmost importance to take into account all the possible parameters of the problem that we face.

Once the problem has been defined, it might seem like it is good enough to have an excellent **idea** to solve it automatically. This is not exactly the case because it is also necessary to define the type of solution that should be achieved: a temporary solution, a definitive solution, a purely commercial solution, a lasting solution, a technically sophisticated solution or a simple and economic one. So far, it is evident that a problem could have various solutions and the adopted solution should be carefully considered.

Any kind and type of problem can be divided into **several components**. This process makes the project easier because it tends to highlight the small singular problems that are hidden in the sub-problems. Once the small problems are solved, one at a time, they are put together in a coherent way, according to all their functional characteristics: material, psychological, ergonomic, structural, economic and formal. The principle of disassembling a problem in its components goes back to the Cartesian method. Since, especially nowadays, the problems become very complex and sometimes complicated, and it is necessary for the creator to have a whole series of information about each individual problem for greater security. It might be necessary to define complexity in order to distinguish what is complex from what is complicated. Each sub problem has an optimal solution that can contrast with the others. The hardest part of a creator's work is to reconcile the various solutions with the overall creation. The solution of the general problem lies in the creative coordination of the solutions of the **sub problems**.

To construct the elements of the project, **data** should be **collected**. Before thinking of any solution, it would be wise to check out if no one else thought about it before. It is wrong to think of a type of solution without knowing if the product in which we are working on is already in the market. There are certainly many examples to put aside, but finally, by eliminating the ones that are not necessary or don't work one will be left with a good gathering of data.

These **data** should be **analysed** in a later plan to see the way that certain sub problems should be solved. Often, technical details are solved and are then overloaded with false aesthetic values because otherwise, it is said, the market does not accept them. In this case, they eliminate the so-called technical values. The analysis of all the collected data can provide suggestions on what not to do through the process for the solution of the problem, and can guide the design of other materials, other technologies, and other costs. So far, there should exist enough material to start the project.

Of course, all the collected material would not be taken into consideration. The project's process can change an idea and substitute it by another one, which might be considered as to be a more creative way to proceed. It is precisely the creativity, which takes the place of the intuitive idea, still linked to the artistic-romantic way of solving a problem. **Creativity** thus occupies the place of the idea. While the idea, which is linked to fantasy, may propose solutions that cannot be solved for technical, material or economic reasons. Obviously, creativity remains within the limits of the problem, limits that result from the analysis of the data and the sub problems.

The next plan consists of another small collection of data on the **materials and technologies** that the creator has at his/her disposal at that time to carry out his/her project. If the creator who runs the project works for example, for an industry that requires from the creator certain materials to work with and has a proprietary technology capable of working these materials, it is useless to think of solutions outside these two-data linked to materials and technologies. And at this point the creator should experiment with the materials and techniques available to carry out his/her project. Often materials and techniques are used in one or a few ways according to tradition. By contrast, through experimentation, new uses of a material or an instrument may be discovered. The experimentation of materials and techniques allows the collection of information on new uses of an invented product with a single purpose. From these experiments come samples, conclusions, information that can lead to the construction of models demonstrating new uses for particular purposes. These new uses may be aimed at solving partial sub problems which,

in turn, and in connection with each other, will compete for the overall solution (Munari & Vasconcelos, 1981).

So far there isn't any drawing, **sketches** or anything that could define the solution. This happens because until now it is not yet known what is the future appearance that the creator wishes to project. But we should be convinced that the hypothesis of possible errors is greatly reduced. We can now begin to establish relationships between the collected data, try to aggravate the sub problems and elaborate some sketches for the construction of the partial **models**. These sketches, always in scale or in natural size, may show us partial solutions of grouping of two or more sub problems. These sketches can be put into practice separately or assembled into the finished overall object. We will thus have a model of what might eventually be the solution to the problem.

At this point it becomes necessary to **verify the model**, or models (it may happen that there is more than one possible solution). The model should be presented to a certain number of likely users and a sincere opinion of the object is requested. Based on these judgments, a control of the model is made to see if it can be modified, whenever the observations are based on objective values. If someone says, "I do not like it, I only appreciate the style of the fifteenth century", this observation is too personal and not valid for everyone. If, on the contrary, another person says, "the switch is too small," we must see if it is possible to increase it. One can, at this point, also make an economic control to verify if the cost of production will allow a fair price in the sale of the object.

Based on all these data one can begin to prepare the **constructive drawings**, in scale or in full size, with all the precise measurements and all the necessary indications to realize the prototype. Consistent drawings should serve to communicate to a person who is not aware of our projects all the useful information to prepare a prototype. These drawings should be executed in a clear and legible way, in sufficient quantity to perceive all its aspects, and then it should be made into a life-size model with very similar materials to the definitive materials, with the same characteristic. The creator should have a clear and complete perception of what he should do.

Munari explains that the scheme of the method, analysed above and depicted below in Diagram 1, is not to be perceived as a fixed scheme, not complete and not unique or definitive. It should be clear that, although it is an elastic scheme, it should be carried out following the indicated order (Munari & Vasconcelos, 1981).

Every creator has to be ready to cope with any type of problems at any time, even if it means changing his/her way of thinking, to solve the problem considering that a project has to achieve the best result with the least effort. (Munari & Vasconcelos, 1981).

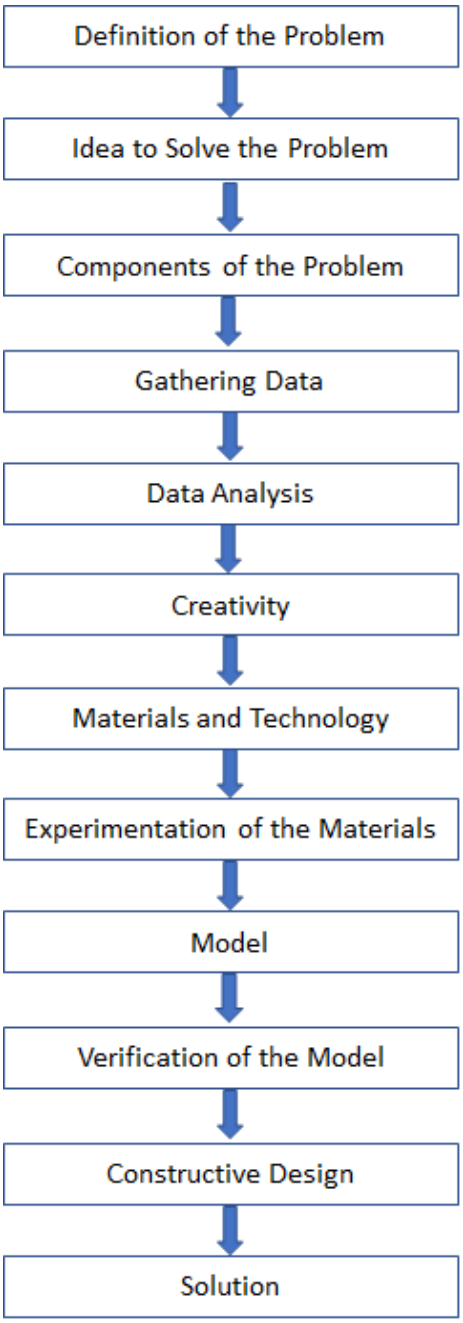

Diagram 1. Projectual Methodology Scheme by Bruno Munari (Munari & Vasconcelos, 1981)

2.3 Teaching Methods

When children get engaged in art processes and activities, someone has made a decision regarding the means of learning one way of defining what is known as methodology, or that even drier term, pedagogy. According to the Cambridge Dictionary pedagogy is defined as the study of the methods and activities of teaching (Hurwitz & Day, 1995).

A good teacher begins where the child's natural interests and abilities end. During the progressive era of the early 1930s, teachers were subjected to accept everything children did as evidence of their optimal potential. But nowadays, it is different. In contemporary times, it is recognizable that much of what the children do on their own without guidance, motivation, or special material is repetitive and not a clear indication of the children's real capabilities. As each child is a unique individual, there are various learning styles and abilities among the children in the schools. On the other hand, a balanced comprehensive art program includes an extensive content of instructions. Given the diversity of learners and the depth of the subjects, art teachers need to develop a repertoire of teaching methods. Which means a variety of teaching methods for implementation (Hurwitz & Day, 1995).

If the school's curriculum deals with the content of instruction, methodology concerns itself with the most effective means of moving students toward realization of curriculum goals. Despite the fact that the school's program might be well planned, the teacher needs to be lucky to have awareness of the processes for getting children to move in a productive way and becoming capable of materializing what they envision. Teachers surely cannot take control over student's intelligence and personality but they can take control over the application of a methodology. Methodology itself, recalls certain principles and techniques of motivation and control that can be studied, observed and reflected on. There are various and different styles of instructional methods. Three of the most general ones (Hurwitz & Day, 1995) are analysed bellow.

The Directive Method is appropriate for transmitting skills, techniques or processes. For instance, calling attention to safety factors should be directive. Or when a teacher plans to introduce a new tool in such a way as to minimize waste or accidents. The Socratic or Questioning Method, employed with groups or individuals, is used to guide students in finding answers. This method requires certain skills of the teacher and takes more time, but it is particularly appropriate for aesthetics or any realm of instruction that deals with ideas, theories, interpretation and analysis. For example, a discussion of the meaning of an artwork can be Socratic. The Discovery Method, is the one in which the teacher set the stage for lessons that are open ended, speculative and

problem solving. For instance, the introduction of a new media could be directive. Another Methodology has a lot to do with the Specific Aspects of Instruction. For example, when teachers suggest a particular way of developing a painting ("Begin large, then work small, and choose your brushes to match the problem," or "Before you mix a colour, think of the amount of paint you will need to cover the space"). In this case, teachers work at the most immediate level of methodology (Hurwitz & Day, 1995).

The teacher may use several approaches in the same lesson. The most recommended approach is Flexibility: A teacher who approaches numerous of strategies or methods of instruction suitable for a particular child, material, or idea. Furthermore, there are modes of teaching art at the primary school that are related with the established parameters given by the art instructor within which the student is to work. In the first case, the student is unable to choose options or approaches other than those that were introduced by the teacher. For instance, the art instructor introduces a new project-problem to the class as well as the materials that the students are to use, the method they are to employ in using these materials, the amount of time they should use to work on the project and even the criteria for a successful result of the project-problem. In contrast, it is possible for the teacher to eliminate all the information given in the first case. For example, a possibility is if the teacher introduces the project, the materials, the method and the time but leaves the criteria to the students. Or the teacher could introduce the project, the materials and method but leave the decisions regarding time and criteria to students. A teacher might inspire the students with similar projects (ready-mades or animated sculptures etc.) and encourage them to develop their own interpretation of the project, using any material or methods they care to use. An art instructor could go even further and experiment to establish the type of classroom in which students define their own problems and proceed in their own way to solve them. In the second case, the number of conditions introduced by the teacher decreases, while the number of opportunities increases. Eisner argues that there is no value connotation associated with the relationships described above and which conditions can only be determined with respect to the nature of the students and the goals of the program. Besides, Eisner explains two other sets of relationships. The ability to cope with problems and the need for imposed conditions. These relationships indicate that as a students' ability to cope with problems in a field increases, his/her need for conditions to be introduced by others decreases. Eisner continues explaining that if such a hypothesis is valid, as teachers they would introduce conditions to a class of students in relation to their assessment of their students' competencies to cope with the problem or project. So then, ideally, the introduction of new conditions is determined by their

assessment of their students' capabilities. The qualified art instructors are able to be fluent and flexible with a number of methods with various degrees of emphasis while they teach, such as demonstrations, audio-visual presentations, individual work, student reports, field trips, dramatizations, assignments, lectures, group activities, games, guest speakers, visual displays and discussion. Teaching can be considered an art form, although much progress has been made toward improving teaching and learning in the schools. Certainly it is not a science with specified actions that guarantee certain responses or reactions (Hurwitz & Day, 1995).

3 Empirical Research

3.1 Research Methodology

The empirical research described in this report was developed during the academic year of 2016/2017, in Colégio Oceanus, V. N. Gaia, Portugal, through the Contemporary Artistic Creation Master field of the University of Aveiro. This report intends to reflect on the Teaching Process of the Visual arts activities of students (i.e., 7-10 years old) designed by the responsible Art Instructor Ms. Fernanda Santos, in Colégio Oceanus, V. N. Gaia, Portugal.

The purpose of this research is to observe and analyse the way in which the teaching process of plastic arts occurs and furthermore to understand, as much as possible, the potential of developing children's' critical skills, creative thinking skills and motivation skills through the process of plastic activities based on the theory of the authors mentioned in the state of the art.

According to the context in which this study is developed, the adopted methodological approach is that of qualitatively based research (Bryman, 2012). Studies that use qualitative approaches tend to be more difficult for most people since they tend to be broad, holistic and in-depth studies, carried out over an extended period of time. This research consists of a deep search to get a complete understanding of the phenomenon being studied. Because qualitative research questions tend to be more open-ended, teacher-researchers sometimes have difficulty identifying the exact methods they will use ahead of time. Frequently, they may select some preliminary methods of data collection (usually observations and interviews) and as they become more aware of the topic their plan can become more focused on the specifics of the observations and interviews. This is the reason why qualitative approaches to conduct research is said to have "emergent" research questions and methodologies.

3.1.1 Participatory Action Research

The methodology used in this thesis is participatory action research. The nature of the study emerges from the specific context of Participant Observation, which means observing as a researcher but also participating in the group. The participant observation enables the researcher to learn first-hand how the actions of the participants correspond to their words, to see patterns of behaviour, to experience that which was unexpected, and to develop a deeper quality of trust, motivating the participants to share with the researcher what they otherwise might not feel comfortable doing. Participant observation typically occurs through data collection in

observational studies but is most important during the early stages of that data collection to establish this type of trusted relationship. According to Mertler in observational studies there are varying levels of researcher participation. I definitely was a **"participant as observer"**. The "participant as observer" takes an active role in the context of a particular setting. The researcher observes and takes notes on what is observed but he has the opportunity to interact with the participants in the study as well. While the researcher actively participates, he has greater opportunities to learn what goes on in that setting first-hand (Mertler, 2006).

The participatory action research privileges various methods of data collection (empirical evidence) such as direct observation, participation in the life of the group and informal interviews derived from the process of practice. So, this methodology enables the researcher to reflect and work on problems identified through the process. As the researcher becomes more focused on what he/she really wants to learn from his/her action research study, he/she has a better idea of exactly who to interview, what to observe, and where those observations should occur (Mertler, 2006).

This study aims to observe, analyse, interpret and reflect the teaching process of the plastic activities such as painting, drawing etc. and to provide assistance to the students in order to develop their skills, such as critical skills, creative thinking and problem solving through the process of the plastic activities. Thus, reflections on the teaching process through participatory action research, allowed the formulation of empirical questions about the teaching process of the plastic activities and a critical reflection on the same practice as well (Mertler, 2006).

3.1.2 Case Study

One of the several approaches to qualitative research includes case studies. A case study, and specifically an observational case study, involves the study of a particular organization or some aspects of the organization. The study might be focused on a particular physical location in the organization (e.g., a classroom), a specific group of people (e.g., teachers in a particular academic department), or a particular activity within the school which takes place under delimited time. The researcher's purpose is to observe, describe, analyse, and establish relations and interpretations of the particular situation. This report gives the researcher the flexibility to reflect and analyse the studied situation (Yin, 1994).

"Firstly, a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not

clearly evident. Secondly, the case study inquiry copes with the technically distinctive situation in which there wiII be many more variables of interest than data points, and as one result relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, another result benefits from the prior development of theoretical propositions to guide data collection and analysis." (Yin, 1994).

In other words, the case study as a research strategy comprises an all-encompassing method incorporating specific approaches of theoretical background and data collection, as well as analysis. In this sense, the case study is neither a data collection tactic nor just a design quality but a comprehensive research strategy.

Considering the empirical nature of this research, and given its contextualization, the methodology adopted in this thesis is case study. The variability of the methods of data collection and analysis made possible by the case study seem to have an added value in the interpretation of the real-life context being studied, allowing a constant reflection on the experiences. Taking into consideration all the limitations of a research of qualitative nature, the use of this research strategy has proved to be appropriate.

3.1.3 Data Collection

Qualitative data is narrative, which is to say, a description of a series of events. These data may appear in the form of interview transcripts, observational notes, journal entries, transcriptions of audio or videotapes, or as existing documents, records or reports. General data can be collected using a variety of techniques but the most important is that qualitative data will always consist of descriptive, narrative accounts.

Observations, as a means of collecting qualitative data, include carefully watching and systematically recording what you see and hear going on in a particular setting. They can be very useful where other forms of data collection simply will not work, such as when teachers want to check for students' nonverbal reactions to something that is occurring in the classroom or when students are working in small groups to better understand how they interact and communicate with one another. However, observations conducted in the classroom have both advantages and limitations. In terms of the advantages, teachers can gather data about actual student behaviours, rather than asking students to report their perceptions or feelings. Also, observations enable the teacher to see some things that students might not be able to report on themselves. However, the simple presence of the teacher as a "data collector" with notebook and pencil, or maybe

holding a video recorder, can change student behaviour. It's possible that the students may behave differently knowing they are being watched. In these cases, the teacher-researcher should probably wait until he observes the desired behaviour.

Classroom observations are often recorded in the form of **fieldnotes**. Fieldnotes are written observations of what the observer sees taking place in the classroom. Sometimes it is difficult to determine what is more important, but Mertler advises the teacher-researcher to stop thinking and simply to write what he sees. Thus, it should be easier for the researcher to focus on things that are more interesting or important and patterns will begin to emerge from the collected data. When recording fieldnotes, the researcher should consider dividing each page of his/her notebook into two columns. The first column should be used for the recording of the researcher's actual observations and the second one for noting preliminary interpretations of what has been observed. According to Mertler, these interpretations are called "observer's comments". "Observer's comments" help to explain the emerging patterns from the observational data. These comments in the researcher's observation notes are a way to integrate reflection into the process of action research. The division into these two columns of commentaries is critical so that actual observations are not confused with what the observer thinks of the observed event. When a teacher-researcher conducts action research studies, he/she should remain objective while collecting data. Besides he/she should not hesitate to record anything which reflects negatively on his/her teaching, since the ultimate objective is to try to learn and improve his/her professional practices (Mertler, 2006).

Nevertheless, the fieldnotes are often insufficient to depict the richness and the details of what one is observing. So, besides fieldnotes, my data collection encompasses **photographs,** which can provide assistance as a tool for recording observations.

4 Educational Context

4.1 Colégio Oceanus

Colégio Oceanus understands that each of the children of this college is like a drop in the river. The path they follow symbolizes one of the first and most important stages of their life, in which their personality and their mental structures are formed and molded, with the affectionate help and the sensitive care of the actors of educational action committed to their wellbeing: educators, family and community.

The Colégio Oceanus believes that the path of life should be carried out in a climate of joy, pleasure, trust and mutual help, valuing the life path of each student, their rhythm and their capacities, enhancing them and promoting humanistic values and principles providing new tools for life.

When each of the children reaches the ocean, into the future of a diverse and complex world, he will feel stronger and more able to face it, leaving behind a testimony of their example to others.

Figure 1. Colégio Oceanus

4.2 Educational School Project 2016-2019

The Educational Project (PE) of the Colégio Oceanus is of vital importance, becoming an instrument for excellence in the achievement of difference, encouraging positive interactions and evoke childrens' desire to explore, create and learn to know themselves and others to learn to do, to be, to feel and to live.

The Educational Project's objective is to guide educational practices through the clarification of education and training priorities and to involve the community, particularly parents, in the life of the Colégio and in the education of the children.

In this way, the Educational Project should be understood as the improvement and deepening of ways to follow and achieve the outlined goals. It is a challenge to provide a Quality of Life and Education to work on values, beliefs, needs and services, in all levels of education (day-care, preschool education and first cycle of basic education), providing pleasure, physical, emotional, material and social well-being.

The Colégio Oceanus believes in building a community that is aware of itself and its role, committed to others and actively involved in the development of the Common Good. So, for the 2016-2019 triennium, the theme of the College's project has been "I, we and others - everything we are and do transforms our Being and the Other". Thus, based on an natural approach to human development - looking at the child from a global point of view, framing it in its diverse contexts of life – the College tries to develop each child, starting with themselves, their self-knowledge and self-image, developing their autonomy, their sense of responsibility and awareness of their role as agents of transformation in the promotion of a more harmonious society.

The development of the defined theme presented above obeys objective thematic orientations that will serve as a motto of the projects to be developed in each of the classes according to the child's age, interests and specificity of each group, in line with the following structure:

- WHO AM I?
    - ME AND MY BODY
    - ME AND MY EMOTIONS
    - ME AND MY BEHAVIOR
    - ME AND MY BRAIN
- WE – ME, MY FAMILY AND THE COMMUNITY
    - MY FAMILY
    - MY SCHOOL

    - MY COMMUNITY
    - WHICH IS MY ROLE
- ME AND OTHERS
    - ME IN HARMONY WITH THE WORLD THAT SURROUNDS ME
    - MY ACTION IN MY BEING
    - MY ACTION IN THE FAMILY
    - MY ACTION IN SCHOOL
    - MY ACTION IN THE COMMUNITY

The Colégio promotes an intercultural education and an awareness for the constant social changes. As such, it supports a child-centered education whose purpose is to promote self-knowledge, autonomy and awareness of the child's responsibility to the other and his/her ability to intervene, in light of the common good. Therefore, the objective of this project is to educate citizens to be capable of interpreting the world today, creatively, critically, reflexively and innovatively in the transformation of information into knowledge, without prejudice, respect and appreciation of others, promoting an active and responsible citizenship.

4.3 The Curricular School Project

The Oceanus curriculum focuses on the learning of curricular contents in a continuous, constructive, playful and didactic way, as well as the desire to learn, to stimulate interest in discovery, imagination and creativity, keeping in mind the scientific, technological and environmental changes in a lively and stimulating environment leading to a broad and harmonious development.

Development depends on both cognitive knowledge and on the ability to deal adaptively with the external and inner world (emotions). In this sense, Colégio Oceanus includes in its educational offer a pedagogical component focused on the management of emotions. The main objective is to promote in each child the development of personal and social strategies and skills that allow him to function properly in the varied situations and sensations that he/she will encounter throughout his/her life.

4.4 The Art Studio

In (Hurwitz & Day, 1995), Al Hurwitz and Michael Day argue that contemporary art programs are founded on the belief that art is an essential and unique element of the complete general education curriculum. To this end, Colégio Oceanus has integrated in its spaces an art studio which contains all the necessary materials for artistic creations.

This space intends to develop several artistic dynamics inspired by several masters of the artistic world. Through these "trips", children work in a variety of techniques, using different supports and materials: various panels in different supports, such as cardboard, paper, canvas, fabric, wood, etc.; Sculptures using different techniques; Tapestries with reused yarns / fabrics, shells, beach chopsticks, etc.; Various crafts such as dolls, suitcases, wallets, key rings, necklaces, etc. In this space, children are encouraged to reuse various materials and to develop a relationship with nature - the motor of the wisest inspirations and their full preservation and respect in the most diverse situations. All these paths are developed based on a strong recreational component and on an affective space: stimulation through games / artistic activities, where they practice on their feelings, their attitudes towards friendship, affection, love, tolerance, forgiveness, respect for the Others and for oneself (Hurwitz & Day, 1995).

This activity is run by an external collaborator of the Colégio, graduated in Fine Arts and specialized in Artistic Education. In the case of Pre-school Education, the area of Expressions functions as a complement to the work performed by the educator at room level. In the First Cycle of Basic Education, the curricular area of Expression and Plastic Education is enriched to the extent that this academic time is also invigorated by the referred external collaborator of the College (Hurwitz & Day, 1995).

Figure 2. Perspective of the Art Studio of Colégio Oceanus

Figure 3. Perspective of the Art Studio of Colégio Oceanus

Figure 4. Perspective of the Art Studio of Colégio Oceanus

Figure 5. Students creating on the floor in the Art Studio

4.5 Art Instructor Ms. Fernanda Santos

Fernanda Santos holds a Master's Degree in Artistic Education from the Faculty of Fine Arts in Lisbon, Portugal. She is an artist who owns an art studio where she gives art courses for children and adults. In addition, she is an art education instructor, who tries to make possible pedagogical experiences that aim to make learning more meaningful through the dialogues established with Art and the community in its fullness. In 2015, she received the prize Ricardo Reis for being the most creative teacher in Portugal, from the Association of Teachers of Expression and Visual Communication (APECV), as the most creative teacher in Portugal. Every year she organizes exhibitions where her students represent their artworks.

She explains that since man exists, people find the intentionality, the impulse, to manipulate the plastic material in an artistic way, provoking successive dialogues with their surroundings. Thus, over time, various works have appeared with various intentions, as part of the whole culture of the people. Therefore, if someone thinks of the development of the personality and the aesthetic sense, the artistic activity becomes a medium to establish an enriching dialogue between the physical and the social environment of the individual, developing creative capacities and contributing to acquire an aesthetic attitude toward the environment. According to her, the arts are indispensable elements in the development of the personal, social and cultural expression of the individual. They are ways of knowing how to articulate imagination, reason and emotion. They permeate people's lives, bringing new perspectives, forms and densities to the environment and society in which they live. The artistic experience influences how one learns, how one communicates and how one interprets the meanings of everyday life. In this way, it contributes to the development of different competences and is reflected in the way one thinks, in what one thinks and in what one produces with one's thinking. The arts allow participation in collective and personal challenges that contribute to the construction of personal and social identity, express and shape the identity, as well as the understanding of the traditions of other cultures and is an area of choice in lifelong learning. The desire to create more enlightened, more awake and wiser people, who absorb all that surround them, tracing the desire to design and build moments of learning. The presented scenarios reveal true discoveries, filled with enchantment. The awakened people move and integrate spaces and the surrounding community, offer courses of action filled with enchantment, guidance, structure and the implementation of meaningful learning. All this leads to the creation of a more complete, happy and integrated life.

Elliot Eisner argues that the art classes at the primary level should be taught by someone who has specialized in the field of arts and not the teacher with general knowledge. Despite that fact, one could argue that the teacher who sees the child in a variety of fields might obtain a more comprehensive picture of his/her abilities and for that reason is in a better position to work with the child in art or maybe in other areas of the curriculum. However, too often the teacher does not obtain competencies and background to be able to use the arts educationally. The teacher who sees the kid in a variety of fields, might have taken one or two art courses in art education at the college level and the last formal work that the teacher might have had was probably five to nine years earlier when he was a junior high school student. Eisner says that the result of this situation is that the teachers who are not specialists are frequently in a state of not being able to decide about what to teach in art and how to make an educational place for the artistic activities from the activities that are introduced in the classroom. Towards this direction, Colégio Oceanus collaborates with Fernanda Santos, who is a specialized teacher in plastic arts.

A balanced program of art education as it is recommended by the American National Art Education Association, suggests a program of art instruction to integrate the study of aesthetics, art criticism, art history and art production. Thus, each student should be engaged in making art, viewing and discussing art, reading and writing about art, learning about contexts in which art has been created and carefully making fundamental questions about art.

Al Hurwitz and Michael Day say that the art program requires regular instructional time and careful attention to curriculum content organized for cumulative learning. Colégio Oceanus has developed the curriculum in such a way that all the students experience the plastic art two hours per week. These two hours are always intense and many different projects happen each week. The children get to know Masters of the art and painting, drawing and sculpture masterpieces through art history, the approach of a variety of materials and the development of forms. Every week there is a new challenge and *connoisseur* activities for each child. Eisner explains the importance of moving quickly from one project with one set of materials to another project with another set of materials. that the rate at which students learn this way increases considerably theme. Al Hurwitz and Michael Day highlight the importance of the work of the children which reflects the individuality of expression and exhibits the results of instruction. Besides, the work of the children becomes more advanced with each grade level as they gain the knowledge and skills of art production. The teacher Fernanda introduces the students to a big variety of materials starting from their preschool age (4-5 years old). So, until the age of nine years old the students

are able to use the materials aesthetically (mastery of materials). Thus, children start to become aware of the competencies that have gained and feel confidence in their own work. They begin to enjoy art as a mode of expression and perception. Fernanda not only focuses on the task of teaching the individual's ability to aesthetically encounter and experience visual form (critical skills), but she also pays attention to the historical and cultural aspects of the art which has a lot to do with learning to see visual forms, learning to understand how art functions in contemporary culture and how it has functioned in the cultures of the past.

In addition, many visits to museums, artistic institutions and foundations are organized by the teacher Fernanda (For instance, the Serralves Museum, Fundação Escultor José Rodrigues, Museu Nacional da Imprensa, Jornais e Artes Gráficas, Casa-Museu Teixeira Lopes, Soares dos Reis National Museum and much more), as she takes the task of exhibiting children's artworks seriously. She manages to display their art in the school space or in outer spaces. All these visits contribute to further the children's knowledge and cultivate their personalities. This mode of gaining knowledge is considered appropriate to enable children to become more imaginative.

"Colour is a power which directly influences the soul" Wassily Kandinsky

Figure 6. Perspective of the Exposition "The emotion of the place" at Colégio Oceanus

Figure 7. Perspective of the Exposition "The emotion of the place" at Colégio Oceanus

Figure 8. Perspective of the Exposition "Father's Day" at Colégio Oceanus

Meanwhile, as Fernanda is specialized in plastic arts, and always aware of the state of the art, she never encounters the problem of selecting content for the art projects. She always introduces new materials, new techniques and new projects into the art school studio. Additionally, she

always relies upon the curriculum calendar. For instance, during Christmas, Carnival, Valentine's day, Father's Day and so on. She achieves to use these events to stimulate and to focus activities that will develop the aesthetic sensibilities of children. In (Hurwitz & Day, 1995), Al Hurwitz and Michael Day explain the importance of the evaluation of the student progress and the evaluation of the program effectiveness. It is of the same importance as with any other school projects. If someone visits the art school studio during the sessions of an art project, he will realize that the children must conduct a small survey concerning the references of the running project. This way, the children are forced to behave like older students who have the responsibility to learn by searching for information using reliable sources, they become able to use Word or PowerPoint and finally they become aware of how to present their own small research in front of their classmates. The students who are not be responsible for preparing this homework will have a lower grade (Hurwitz & Day, 1995).

4.6 The Students of Colégio Oceanus

I observed the classes of the third and fourth grade of Colégio Oceanus. The third grade consisted of nine male students and thirteen female students. The fourth grade consisted of nine male students and six female students. I decided to observe these two grades because they already had developed their writing skills rather than those of the first and second grades. However, the visual arts activities designed by their art instructor Ms. Fernanda were the same for students of all grades.

The students of Colégio Oceanus were very polite. They had a critical, creative, independent, confident and positive attitude. When interacting with them, it was obvious that these behaviours were developed due to the contribution of both parents and school. Most of the students do sports (e.g., tennis, rugby), are involved in arts (e.g. performance, theatre, music, photography), they have computer knowledge and speak more than one foreign language.

Through the visual arts activities in the studio, the students were always interested in experiencing. First of all, they were good learners, communicative, curious, motivated, collaborative, persistent, tidy, good organizers with their personal belongings, patient until the execution of the project, responsible for the materials and respectful to their teachers, to their classmates and the studio. Out of the studio the students were also very respectful to the environment and the nature. They obeyed the rules of the school and they behaved serious when it was needed.

Children, today, are quite different from what they used to be. Innocence, sweetness, sincerity or credulity obviously tend to be infancy's characteristics. The separation between maturity and childhood becomes less and less clear. There are various social factors that result to this situation. Undoubtedly, one of the most important factors is the access to all kinds of information that schoolchildren can get and that in other times was the only the adults' privilege (Caja Francisco et al., 2001).

Children's preferences in terms of consumption are directed as well as their aspirations and their desires. As the school is not the only social area in which the child is developed. Their social behaviour is guided equally by the media. Among them, is the television. The television teaches, distracts and, above all socialize. The world is more dynamic than it used to be. The stimuli are much stronger than they used to be and the students therefore expect from the teacher and the school a greater speed, immediacy, a greater acceleration, liveliness in the school works, in the processes and impressive results as well.

Thus, the plastic artworks should tend to be colourful, of a size important enough to attract attention and if possible to perform with a great speed, so that there should not need a long period of incubation and less execution. They must respond as far as possible to the immediate creative impulse, but as far as possible they must assume an effort and a challenge to overcome (Caja Francisco et al., 2001).

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5 Education Activities in Visual Arts

Activities are the actions through which selected contents are specified. They are structured and organized experiences that the students should carry out in order to integrate the contents that will allow them to develop their own capacities in the area of visual and plastic education. The classification of activities can be done according to different criteria. One of the most frequent is the role they play within the learning process. Any learning sequence should include activities which develop the initial knowledge that the students have on certain content, it should motivate them to start the learning process, the discovery, and the understanding of a new content. Finally, the students must carry out activities to apply the new acquired knowledge. All didactic sequences should include all these types of activities, and all students should do them. Only some students need to do reinforcement, recovery or expansion activities, depending on their learning pace. This way of classifying activities is common to any subject, however, the specialization of the activities of visual and plastic education are the very characteristics of the field, where the development of the manipulative, the perceptive/visual and the creative/expressive are the abilities which determine the processes of learning. It is important that the student acquires skills in the manipulation of materials, sufficient ability in handling the tools, awareness of what he perceives and knows, learns how to look, appreciates and analyses his/her artistic and visual environment. And lastly, it is important to have the resources to carry out processes of creation and expression. Due to these characteristics of manipulation, perception and creation/expression, the activities will be separated in three sections (Caja Francisco et al., 2001).

5.1 Perceptual Activities

The activities that derive from the action of perceiving are linked to the senses, the observation of the natural world, the artistic and visual environment that surrounds us. The observation and perception of this environment should be done with all the senses, although it may seem that the sight is dominant. The activities of this section need three elements such as the senses, something to be perceived and the dialogue.

In a learning situation, through observation, the perceptual mechanisms are developed, increasing, in turn, the ability of the observation of the students. At the same time, while observing and perceiving, the pupil also exercises his/her memory, establishing relationships, comparisons and associations with other sensations, images and experiences. All the senses and

mental processes that the students have put in place to observe, perceive and feel the environment, a work of art or an image are integrated in their structure of knowledge through dialogue and through the verbalization of the sensations.

It should be noted that there is no material evidence for the implementation of the activities of this section. Depending on the level of education in which they work, it is desirable that the students leave written testimony, by means of a questionnaire or a description, of what they have observed and of the sensations they have perceived, or from the teacher's written observations of the students. It is also advisable that the sensations the students observe, perceive and feel are transferred to the paper in the form of a stroke, a drawing or a clay model (Caja Francisco et al., 2001).

5.1.1 Sight

Although it seems obvious, teaching how to look is one of the primary activities in visual and plastic education and it is necessary to devote time to developing it. To observe a shape, to differentiate it from another, to look carefully and enjoy a work of art, to distinguish a tone of green from another tone, to discover the symmetry of a butterfly, to notice that all the houses are different, that all the trees are different. These situations as many others are the foundation of the other disciplines. To see, look, observe and perceive allows us to know that it's not possible to draw, paint or reproduce anything that is not known. Therefore, all those games and activities that involve seeing, looking, perceiving and observing practices are fundamental in order to develop the skill to look more closely.

Games adapted to situations related to the area are activities which awaken the interest to look at objects and works of art. It is also effective to talk about how things are and look like, how animals, people or works of art are in terms of their shapes, their colours, their texture and how they look. For perceiving the essence of object is fundamental to know how to look at them, otherwise, it is difficult for students to carry out works of plastic representation (Caja Francisco et al., 2001).

5.1.2 Artistic Appreciation

The activities referred to in this section aim to develop the ability to appreciate. It is about putting the students in situations in which they observe their environment, perceive it, feel it and become aware of it. There are daily opportunities which enable us to see. For example, the class window is

a good framework for observing: light or dark and menacing skies, it can be a rich experience in sensations, semblances and fantasies. A school outing is another situation which provokes new experiences. There are landscapes that are gentle, wild, overwhelming, pleasant, hard, and so on. The same happens with the forms of the trees, it will be necessary to find the most appropriate descriptions for each of them.

Visits to exhibitions and museums are a good occasion to bring students to the works of art, and to experience "the pleasure of looking". Being in front of works of art allows students to express their feelings freely and to approach the arts without any prejudice, without any preconceived ideas. In the museum, the student should walk among the works of art free of prejudices, judging only from experience. Asking and talking about what is seen to find answers, to give meaning to the artworks, to interpret and reflect.

All these experiences are not restricted by age. So, a three-year-old student sees a work of Paul Klee, De Kadinsky or Mondrian the same way as a high school student. Of course, the approach to the work will be different and the issues that will appear won't be the same, but both will benefit from the relationships they have established with art (Caja Francisco et al., 2001).

5.1.3 Analysis of Works of Art and Images

After the approach related to the senses, it is advisable to start a second dialogue to analyse the works of art and the images closest to the cultural environment of the students. The variables to be analysed are multiple, depending on the educational level and the wealth of previous experiences. Someone can speak about the laws of composition, the cultural meanings of colours, the relations between background and form, the artist, the art history, the relations of works with other forms of artistic expression, relations of art with advertising, aesthetic conceptions, philosophy, etc. in order to situate them in their context and interpret the intentionality with which they were supposed to be created (Caja Francisco et al., 2001).

5.2 Manipulative and Experimental Activities

The materialization of a plastic artwork or an image requires abilities and skills in the handling of tools and in the use of the materials. Thus, the Art Instructor is forced to establish processes of introduction to the plastic materials, the most used tools and their experimentation, and the systematization of their use, before any creative work is proposed. All these processes require a

good control of the hand to carry out each action. The hand and the thought interact with each other constantly, in order to be able to translate any idea into a plastic work.

The students should have enough information to manipulate the materials and use the tools correctly, but always leaving space for the unknown to formulate hypotheses about the desired result. It is necessary for the students to prove, after the experimentation, that they get the expected result. If they obtain the expected result or even if the result is unexpected, the students question themselves why the desirable result was not achieved. If the students do not act like this, the Art Instructor should encourage the reflection on the process and the achieved results. The richer this process of experimentation and reflection is, the higher possibilities the student will achieve at the moment of performing creative activities.

Although the final product from this activity is a tangible work, the purpose of this activity is not to obtain a creative work, in the strict sense, but the acquisition of skills and abilities. It is very likely that students will obtain works of great plasticity, especially if it is part of their interests. It is convenient to look for themes or plastic proposals so that the experimentation doesn't become an obligation that would not benefit the students (Caja Francisco et al., 2001).

5.2.1 Experimentation with Materials

The first contact with the plastic materials should be experiential. Maybe an approach through the senses when working with young students. For day-care students it is important to discover clay, play with it, explore it, smell it, get dirty, getting their hands into it and letting it dry in their hands. As we progress in the educational level, new ways of manipulating should be introduced. It is necessary for the four-year-old students to paint their faces with clay, seven-year-old students make a sgraffito in a plate, and fourteen-year-old students to get to know the systematized process of the manipulation of the clay, from kneading to cooking.

Any experimentation with the materials must take into account the physical characteristics of the material and its composition in order to become familiar with the materials interaction, the solvent of a particular paint or the best glue for solid materials. On the other hand, one must experiment with the most appropriate tools for manipulation and those that can be used, even though they have no apparent relation. Besides, it is necessary to experiment with different supports, for example the number of the needed supports that can be applied and the way to prepare and manipulate them to obtain different results. Finally, it is of utmost importance to experiment with the mixed techniques. The aim of the experimentation is for the students to get

to know a great number of expressive possibilities that the materials can offer. It is not enough to just cover large surfaces with waxes, it is also necessary to know how they behave on different supports, how they react in contact with other materials, what happens when heat is applied, what tools are used to apply the waxes, etc. (Caja Francisco et al., 2001).

5.2.2 Handling Tools

It is expected that the use of the pencil and the brush will be qualitatively better when are done by a fourteen-year-old student than by a five-year-old student. The acquisition of sufficient skill to handle a pencil or a brush requires having carried out motor exercises with each of the joints of the arm, wrist and hand, to use the pencil to make horizontal and vertical lines of different sizes and intensities, crosshatching, gradients, etc. It also requires to handle the brush to profile, to cover, to obtain glazes, to mix paint in the palette, to paint in vertical and horizontal position, and to use it on different supports. Additionally, it requires experience in working with different brushes, hard and soft bristle brushes or flat and round brushes. The same thing happens with other tools: the gouge, the roller, the blade, the scissors, the saw, the hammer, the screwdriver, the photocopier, the computer, the video camera, etc.

When using any tool, conventional or not, which is useful in the performance of a plastic artwork, it will be necessary to learn how it is handled in order to get the maximum performance and to avoid accidents. It is advisable to establish a process of experimentation, which can sometimes be slow and heavy work, because to get students to acquire the necessary skills for their correct use requires repetition and experience. It is important for the students to be familiar with the tools so that they know how to use them when doing a plastic artwork (Caja Francisco et al., 2001).

5.2.3 Practicing the Gesture

In visual and plastic education, exercising again and again with the same materials and tools is essential to acquire fluency when doing certain actions. It is also a way to master the gesture. The gesture is at the origin of the stroke, the stroke is at the origin of the line and the line is at the origin of the form and the volume. So exercising the hand gesture to get strokes, lines, crosshatching and textures with different materials and tools will give students a greater ease and expressive ability, as well as security when the time comes to carry out school artwork proposals.

This is a slow learning process that requires repetition and a mix of different exercises, whether one is using the pencil, the pen, the nib or the brush. The way to present these activities is to look for attractive exercises for the students, whether to establish collaboration between students to

create crosshatching or textures, or to propose the representation of elements of nature with lines: the classmate's hair, a spider web or broken gauze. Whatever the proposal is, these exercises are crucial to obtain the necessary skills to work the drawing with minimum success.

In addition to the exercises of mastery of the gesture, it is also important to apply the acquired skills in the work of the student. These systematic drawing exercises, along with those aimed at teaching how to look, will favor the expressive ability of the students, and give them security, regardless of their innate gifts (Caja Francisco et al., 2001).

5.3 Activities of Expression and Communication

The creation is the culmination of the process in which all the elements worked up until now take part, that is to say:

- All the skills and abilities that the student has acquired in the processes of experimentation with materials and tools.
- The developed sensitivity from appreciating works of art and from the experiences enjoyed in the contact with the environment.
- The ability of analysis that has been worked from the reflection on artistic works and images.

But above all it is necessary to have something to express or communicate. The creative process is born in the student, in what he is, in what he knows, in what he perceives, in his/her own experiences, in how these factors interact in the processes of reflection to define something as he wants it, to translate his/her feelings, thoughts, convictions, ideas, opinions, experiences, fantasies or imagination into a plastic artwork. Or to solve the plastic problems that arise, or to create images that clearly show the idea he wants to explain (Caja Francisco et al., 2001).

5.3.1 Creation of Plastic Artworks

The spent time observing, analyzing, reflecting and talking about what the students wish to express increases their chances for success. Knowing what they wish to express, what materials or colours best correspond to their intention, what solutions have been given by other artists to the same problem, to think about how many different ways exist to express a specific idea, thought or sensation.

This process is as valid for a three-year-old child as for a fifteen-year-old teenager. Nine-year-old students might be asked to represent sentences with shapes and colours, but first it is necessary to analyse them, to try to locate them physically in the body, to associate them intuitively with forms and colours and to try to explain the reasons for these associations and finally to express those sensations with forms and colours.

The reflection and analysis done before and during the process of plastic expression is as important as the materialization of the work. The verbalization of the student's thoughts on his performance and the subsequent evaluation of his work is what will help him to become aware of the learning he does, and would facilitate the acquisition of all the new knowledge that will obtain with each new work in the future (Caja Francisco et al., 2001).

5.3.2 Communication of Ideas

Having something to communicate implies that there is an idea to transmit, what its content is, which the cultural connotations are, defines who the target audience is, etc. It all depends on a reflection on images, colours, and their meanings. To analyse diverse solutions, to choose the best option to communicate that idea and finally to be perceived by the majority of people in a specific cultural scope.

Given the images, the creative process becomes complicated when determining which medium should be used to generate them and to display them, which technique or technology is going to be used, or whether it will be a still or moving image. This leads to the necessity of knowing the characteristics, advantages, limitations and the peculiarities of each medium such as poster, photography, video, multimedia, internet, etc (Caja Francisco et al., 2001).

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6 Report of the Activities

The Visual arts activities of the Curriculum Program of the Colégio Oceanus, described in this chapter, was assisted by 7 to 10-year-old students. The art instructor's Ms. Fernanda Santos artistic projects, which I assisted, took place in Colégio Oceanus from January 2017 to March 2017. The artistic projects, which lasted for the duration of those three months, consisted of two main projects. In the duration of those three months, I observed and reflected about seven artistic sessions, which were centred around these two projects. I separated and analysed them in five different sections. The first Project was artistic gift-creation for Father's Day celebration and the second Project was a painted canvas gift for the Pediatric Hospital Joãozinho. Through these projects, children practiced the mediums of drawing, collage, sculpture and painting while they focused on the creation of lines, marks, textures, patterns and geometric shapes. The students worked on the topics of personal identity, social identity and identity of the territory (patrimony). In relation to these projects, they were taught about Masters of the Art world such as Paul Klee, Auguste Rodin, Pierre Alechinsky and Matt Bolinger, as well as Portuguese artists such as Texeira Lopes and Soares dos Reis. Both projects, designed by the art instructor Ms. Fernanda Santos, integrate various contents and objectives such as:

- Human Figure Drawing practices (inspired by the sculptor August Rodin)
- Human Figure Drawing practices (inspired by the Portuguese sculptors Soares dos Reis and Teixeira Lopes)
- Study and presentation of the artists August Rodin, Soares do Reis and Teixeira Lopes (conducted by the students until the end of the project.)
- Exploration of different Media and Techniques
- Developing Skills in Drawing from Observation
- History of art
- Colour theory

6.1 Session: 17/01/2017 – Project Work: Father's Day Gift

6.1.1 Observations

Session's Content and Objectives:

- Drawing Movement (the body in movement)
- Studying different poses
- Studying Rodin, Texeira Lopes and Soares dos Reis (until 07/02/2017)

The teacher Fernanda presents the wooden human mannequin body and demonstrates how to draw in different poses. She advises the students to feel the movement that they are portraying in their own body, because this will inform them about the movement they are trying to draw. In addition, she suggests that students observe, watch and analyse people's movements to check out how each part of the anatomy behaves in a range of poses and attitudes. The students must practice three different poses-movements on the same paper using colour pencils or charcoal pencil.

Figure 9. Various Mannequin Body Poses

Figure 10. Various Mannequin Body Poses

6.1.2 Students' Interpretation – Praxis

Three studies for the mannequin poses on the same paper:

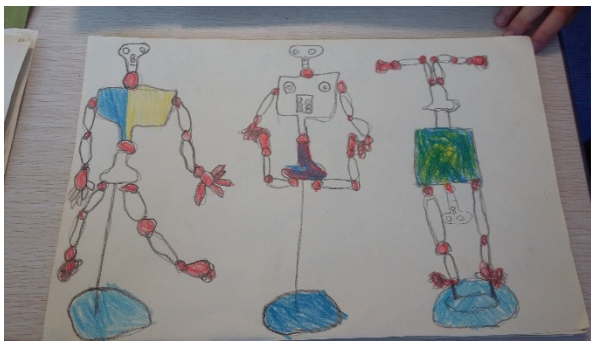

Figure 11. Boy – 8-year-old

Figure 12. Girl – 8-year-old

Figure 13. Girl – 8-year-old

Figure 14. Boy – 9-year-old

Figure 15. Girl – 8-year-old

Figure 16. Boy – 8-year-old

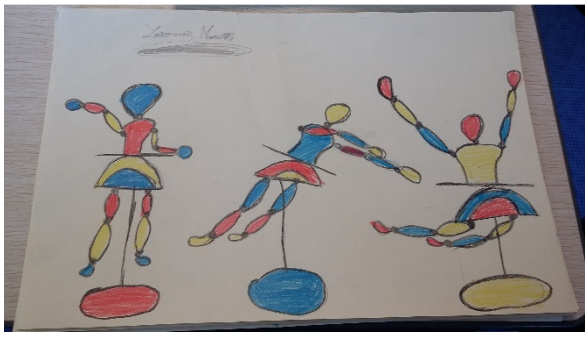

Figure 17. Girl – 8-year-old

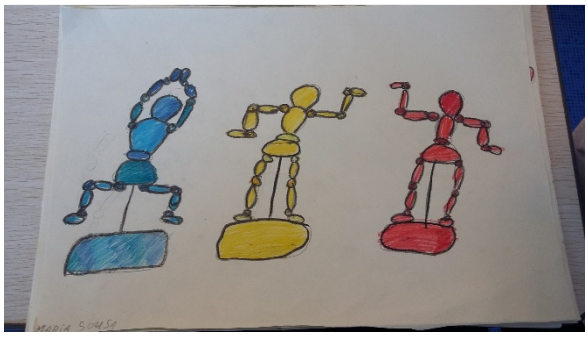

Figure 18. Girl – 8-year-old

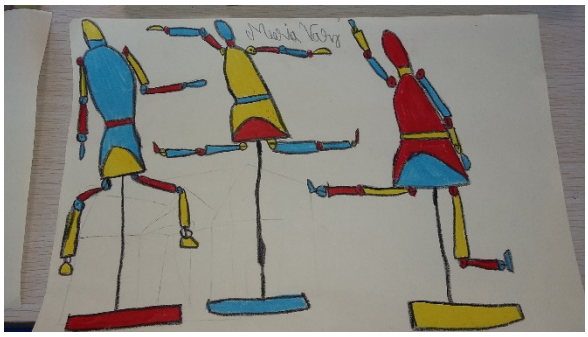

Figure 19. Girl – 10-year-old

Figure 20. Girl – 8-year-old

Figure 21. Girl – 9-year-old

Figure 22. Boy – 8-year-old

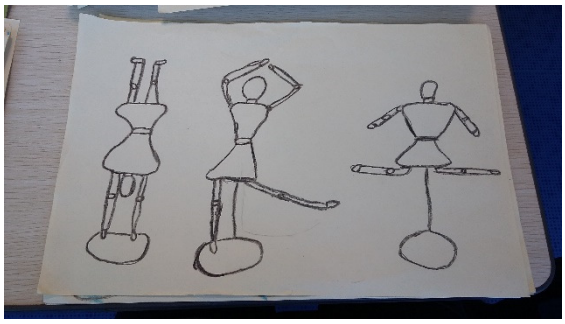

Figure 23. Girl – 8 -year-old

One or two studies for the mannequin poses in different pieces of paper:

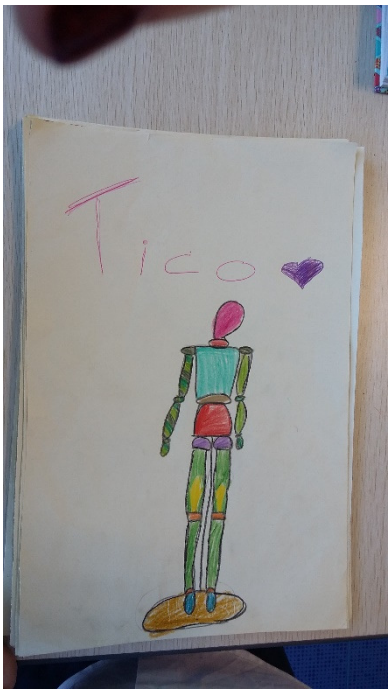

Figure 24. Girl – 8-year-old

Figure 25. Girl – 8-year-old (1st study)

Figure 26. Girl – 8-year-old (2nd study)

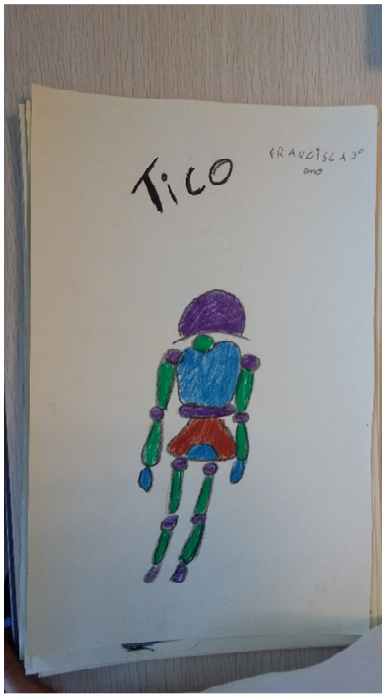

Figure 27. Girl – 8-year-old (1st study)

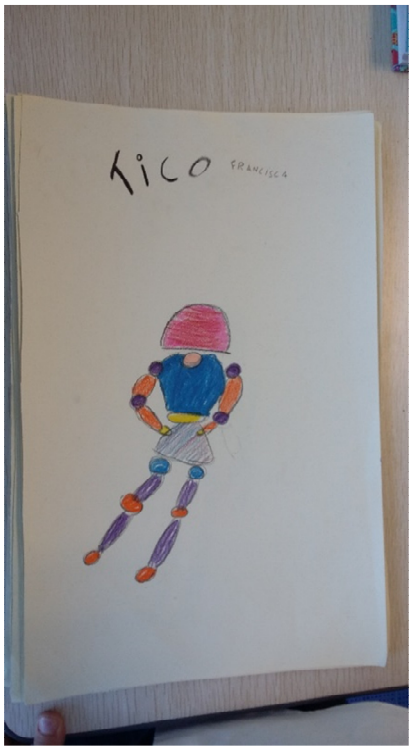

Figure 28. Girl – 8-year-old (2nd study)

Figure 29. Boy – 9-year-old

Figure 30. Girl – 8-year-old

Figure 31. Girl – 8-year-old (2nd study)

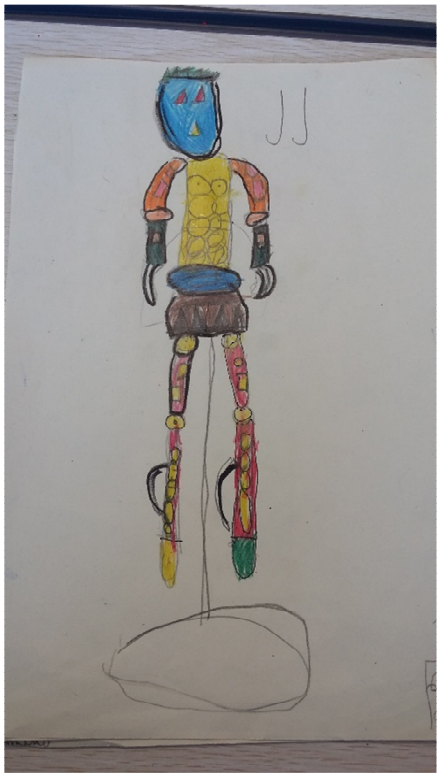

Figure 32. Boy – 8-year-old

Figure 33. Girl – 8-year-old (1st study)

Figure 34. Girl – 8-year-old (2nd study)

Figure 35. Girl – 8-year-old

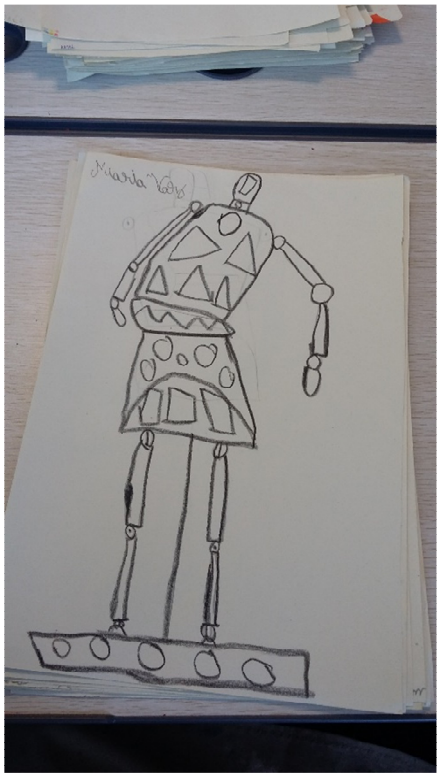

Figure 36. Girl – 10-year-old (1st study)

Figure 37. Girl – 10-year-old (2nd study)

Figure 38. Girl – 8-year-old (1st study)

Figure 39. Girl – 8-year-old (2nd study)

Figure 40. Boy – 8 -year-old (1st study)

Figure 41. Boy – 8-year-old (2nd study)

Figure 42. Girl – 9-year-old (1st study)

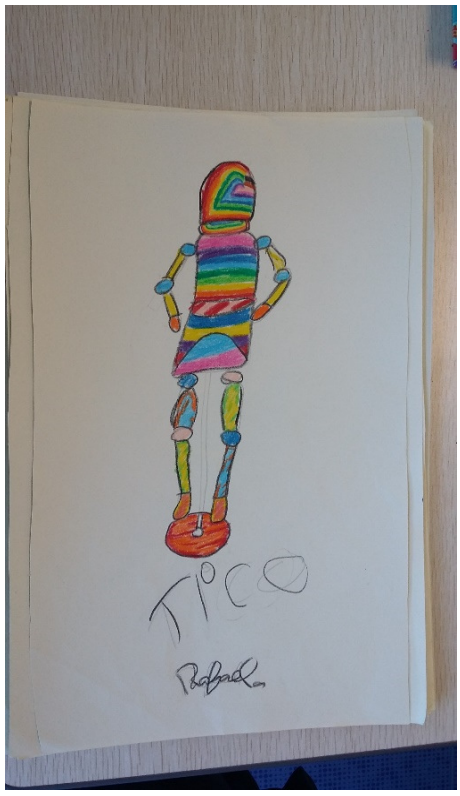

Figure 43. Girl – 9-year-old (2nd study)

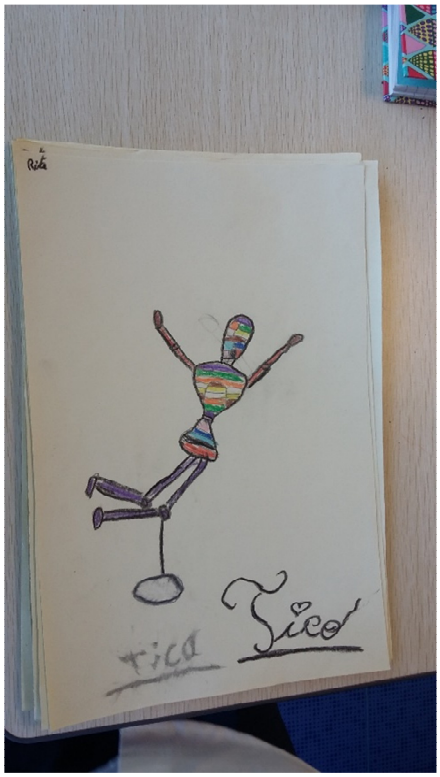

Figure 44. Girl – 9-year-old (1st study)

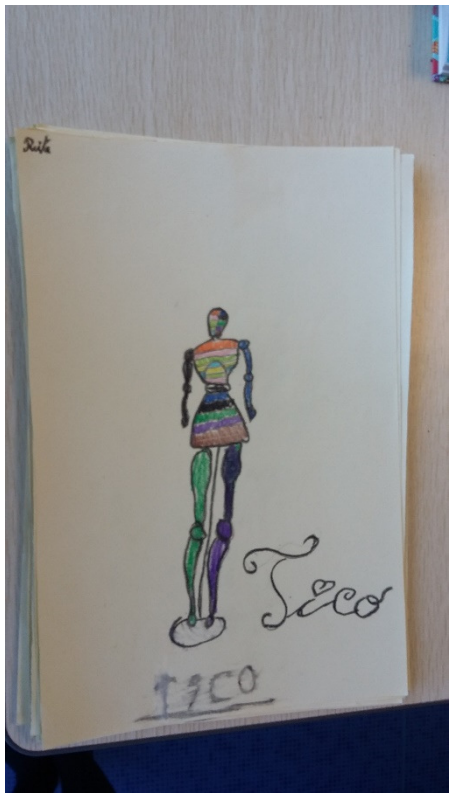

Figure 45. Girl – 9-year-old (second study)

Figure 46. Boy – 9-year-old (1st study)

Figure 47. Boy – 9-year-old (2nd study)

6.1.3 Reflections

On the above drawings, it is obvious that some of the students used colour pencils, other students used only charcoal pencil and some others used both of the materials. According to Ms. Fernanda, the best approach was the last one, where the students used both colour pencils and charcoal pencils. By working with both materials, the students were told to think about the colour combinations while at the same time they kept trying to emphasize the contour of the figures with pencil charcoal.

Just before the start of the process, Ms. Fernanda gave some instructions to the students. She gave them two different options for presenting their drawings. In the first option, the student should draw three different poses of the mannequin and then paint it using the primary colours. In the second option, the student should draw one pose of the figure's movement and then experiment with any kind of colour.

In other words, in the first case the students used a limited number of colours, the primary ones: blue, red, yellow. The main concerns of that group of students were the practice of various movements of the mannequin and the management of the space of their paper. On the other hand, the second group of students practiced on just one figure's movement, as a result they spent more time on the selection and the aesthetic colour combinations. Both groups of students had to practice body proportions.

I think the instructions given by Ms. Fernanda were neither limited nor chaotic. They were strict enough in order for the students to be focused on both on representation of the movement and on the handling of colour. Considering that the main purpose of the lesson was to practice the movement of the human body, the first group focused more on this part. However, after finishing their drawing, the children who started to practice on one study of the mannequin movement asked the teachers to give them more paper to produce one more figure movement. In the latter case of the children who asked for extra paper to create above, it is notable that despite the specific criteria given by Ms. Fernanda, it is up to the child to evolve and to experiment beyond what the teacher asks for. I believe that the expression of the desire of the students of the second group in the studio to draw a second figure mannequin as it is depicted in Figures 26, 28, 31, 34, 37, 39, 41, 43, 45 and 47, may be due to the admiration of these students for their classmates' artworks, who had already drawn over one mannequin figure.

Meanwhile both group of students benefited in terms of gaining all the knowledge taught in the studio. This happened as the questions made by the students through the session were answered collectively and not individually.

The majority of the drawing studies above have the written word “Tico” on them as it is depicted in Figures 13, 24, 25, 26, 27, 28, 43, 42, 44, and 45. Fernanda convinces children to write the theme of the day, which corresponds to the content of the course, on their artworks Once the child returns home, he won’t be able to remember all the new information he acquired in the class without writing it down. The student can remember what he depicted on the paper but not necessarily what he heard. In this sense, the building of this habit, proposed by the art instructor Ms. Fernanda, puts the students’ mind and hand in a synchronized process so that they can illustrate their desired word on the paper. This is a way to remember the references they have been taught through the artistic session.

In some of the figures we see patterns drawn on the mannequin bodies as it is depicted in Figures 13, 26, 29, 32, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46 and 47. By using their imagination, the children were a step ahead of what they had been asked to make. In such cases, Ms. Fernanda encourages the children to set their imagination free. These artworks of thought and imagination are used by Ms. Fernanda as references for the students who will go to the studio next. Guilford argues that the teacher’s personality, enthusiasm for the activity, acceptance of unusual ideas, flair for communication and high level of energy all play an important role in the classes motivation. This is where creativity and imagination come into play (Guilford, 1977).

Children see each other’s artworks as a source for gaining ideas. Thus, they improve their artwork technically and aesthetically each time. Even more impressive is the fact that children do not compete but instead they admire their classmate’s artworks which probably comprise good reference for future ideas.

6.2 Session: 24/01/2017 – Project Work: Father's Day Gift

6.2.1 Observations

Session's Content and Objectives:

- Introduction to Historical Facts about Auguste Rodin
- Portray Form (analysing form)- Investigations of form
- Looking at the human figures – practicing drawing the human figure
- Light and shade
- Exercising in simplifying form-S

The art instructor Fernanda's projects exposed information on the wall (such as some of Rodin's drawings which were seldom used as studies or projects for a sculpture or monument). She asks the children to put their sketchbooks on the desks. The task of the day is to discover the French sculptor Auguste Rodin, (born Nov. 12, 1840, Paris, France—died Nov. 17, 1917, Meudon). The purpose of this session is the children's' awareness of three-dimensionality and form. Before children start to create, the teacher makes a short reference to the artist's life, work, and achievements of his art.

Figure 48. Rodin's Cambodian dancers (Projection on the wall)

Figure 49. Cambodian dancer:(Rodin's drawings were seldom used as studies or projects for a sculpture or a monument)

Right After, the children are asked to practice drawing human figures by observing the pictured statues and the Cambodian dancers in movement by Rodin, which are projected on the wall. They should choose to practise some of the various figure poses, using different materials. Firstly, they should draw using a pencil, secondly a coloured chalk and thirdly charcoal. At the end, they will draw figure poses in their sketchbook using graphite pencils.

Figure 50. The Thinker, bronze sculpture by Auguste Rodin, 1880; in the garden of the Rodin Museum, Paris. Spectrum Colour Library/Heritage-Images.

6.2.2 Students' Interpretation – Praxis

Three studies for the Thinker using different materials:

Figure 51. Boy – 8-year-old

Figure 52. Girl – 8-year-old

Figure 53. Girl – 8-year-old

Figure 54. Boy – 8-year-old

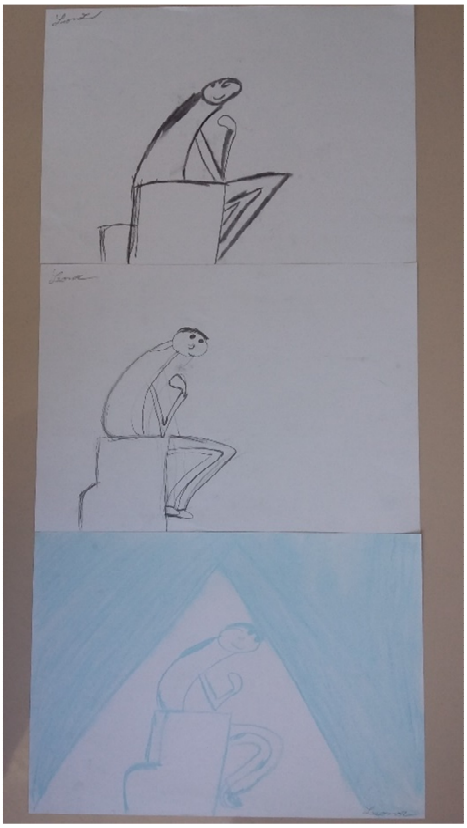

Figure 55. Girl – 8-year-old

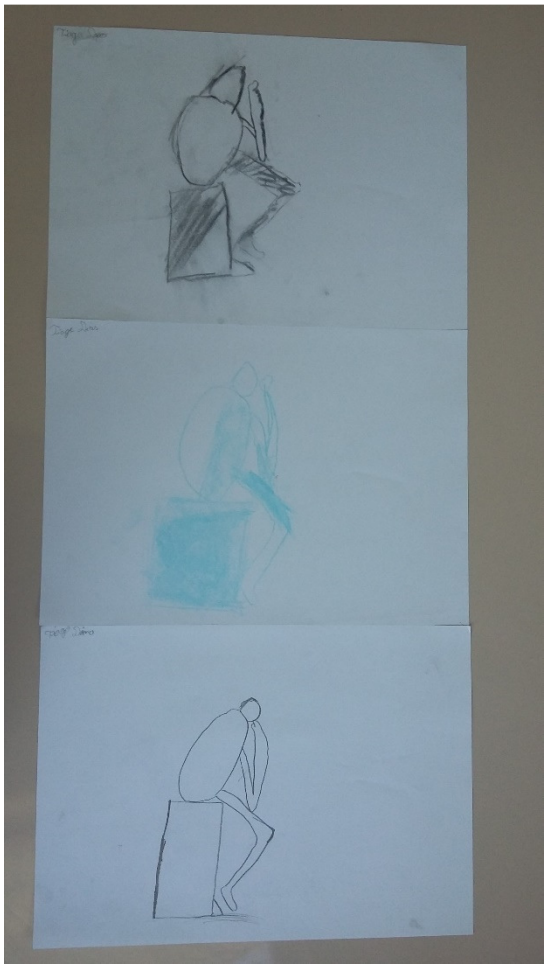

Figure 57. Boy – 8-year-old

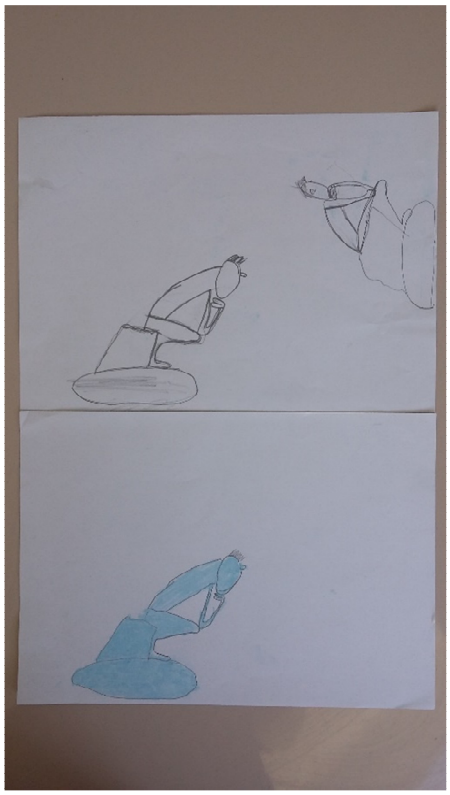

Figure 56. Boy – 8-year-old

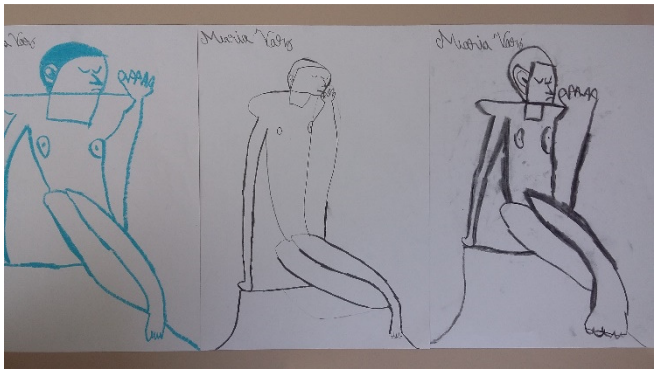

Figure 58. Girl – 10-year-old

6.2.3 Reflections

The art instructor was aware of the difficulty of the project. The children are often concerned about the way they are going to reflect their interpretation on the paper. Hence, Fernanda advised the children saying that a successful sketch artist is mainly a person who observes in a detailed way. Of course, children can be taught strategies to become more observant people. In other words, the art instructors can provide children with knowledge to help them further develop their **observational skills**.

Observation is about more than simply replicating a subject with photographic accuracy. The artists have the licence to move, alter, emphasize or exclude elements of their choosing. For example, he might decide to exaggerate the scale or experiment with perspective to create a more dynamic arrangement. The art of seeing is not only about capturing what is in front of you, but also about interpreting it in the artist's way. The development of a child's observational skills is the first step to create a successful painting or drawing. With a good understanding of the subject matter, the artist will be able to depict it more convincingly (Munari, 1987).

Some guidelines were suggested to the little artists through the art session in the studio. Firstly, they should spend time with a subject before they start to paint or draw. Secondly, they should make any preconceptions they might have about how they think something looks disappear. Instead, they should concentrate on what they can actually see in front of them. They must notice where the light falls and which areas are in the shadow. Furthermore, they need to be able to look at the edges and see if they are crisp and well defined, or blurred and indistinct. In addition, they must differentiate between the shapes, including both the positive shapes of the object itself and the negative spaces between and around the object. A good way of identifying the basic shapes within the subject is to use triangles, circles, and rectangles to construct the form and establish proportion. Also, they should make sure they are seeing the subject from the best vantage point and that they have a strong composition. A good range of tones and the decision of the placing of the main focal points are of great importance. Children where very excited when they understood that objects are shaped by light, so producing a drawing or a painting is a matter of tracing the light, with the objects taking shape as a result. The base measurement is also an important element for the construction of the drawing or painting. The artists should take a measurement from an element in the scene (for instance, the thinker's arm). Then, compare other elements to this base measure to keep the proportions true. Another way is to squint your eyes at the subject

to block out the detail. This way will help you differentiate between areas of light and shadow as the artist plans and gets started on his drawing or painting. It is not necessary to copy a subject exactly or to include every element as the objective is for the scene to be conveyed in the artist's personal interpretation.

"I paint objects as I think them, not as I see them" Pablo Picasso

Observational skills are directly connected with a person's critical skills, which are concerned with looking and analysing. Development of visually sensitive or visually literate children is a fundamental reason for doing art. The development of awareness and receptivity to visual things encompasses all the things associated with artistic pursuits. For instance, artists invent, imagine, analyse, apply colour, sculpt and assemble things. However, all these activities contribute to children's artistic education by making them literate in a particularly visual way. Through a sharpened visual sense, they learn to see much more and see with greater insight. Thus, for them, trees which were rather generalized perceptions become objects of close observation and significance. The flight of a bird, the form of a sea shell, or the twisted roots of a tree, all have aesthetic qualities which become possible to experience due to visual literacy. By developing the ability to see in far more specific ways, children can begin to ignore what is only superficial and allow themselves to become observant of the subtler qualities and changes of form which are present in everything their eyes and minds rest on (Barnes, 2015).

The direct attention that children can bring to looking allows them to concentrate on much more than each form in isolation. When their visual sensitivity is undeveloped they usually focus on one thing at a time and draw separate objects surrounded by space. Art can help them to understand the world in a greatly extended way so that they then start to absorb and integrate a wide spectrum of perceptions in relation one to another (Barnes, 2015).

A long-term aim of developing visual literacy is to make children so attentive to their environment that they continue to look around them when they grow up. For example, the richness of nature can be experienced through art precisely because of art's appropriateness as a way of knowing the world. Developing visual sensitivity is important for producing artistically educated and aware adults who care about what the things around them look like (Barnes, 2015).

Most of the students found difficulty in the way of representing the figure forms. As with any drawing, the main shapes are the first to be dealt with. One should always try to visualise the figure as a whole and then it will be easier to get the correct proportions. At this point, the

teacher demonstrated the simplification of the forms. The figure will be reduced to its simplest geometric shapes. Once they have drawn the simple solid geometrical shape, they can draw into it knowing that this is their ground plan. In this particular case “The Thinker” will be simplified into an S and a Triangle.

Figure 59. The Thinker-Simplification of the form

There was a student who was totally negative and didn’t want to procced with the drawing. When I asked him the reason for being so negative since at least he could try to draw, he responded to me that he had no idea what to do. Then, I thought that it would be very helpful for this student and for the whole class to be aware that ideas don’t come out of nowhere, ideas emerge from a specific way of thinking. I took the permission from Fernanda and I started talking to the class about the generation of ideas (Gompertz, 2015).

In (Guilford, 1977), Guilford argues that cognition has a lot to do with learning. He also, highlights the importance of storing in our mind a good supply of ideas to use. He explains that if there has been no cognition, there will be no memory. If there is no memory, there is no divergent production. A simple conclusion is that if there is no previous cognition there is no divergent production. In turn, this suggests that we can never have an idea that is a hundred percent new. Divergent-production abilities are concerned with a broad kind of search for information to be

retrieved from the memory store to meet given situations. Guilford argues that the greatest importance of divergent-production abilities is in the connection with creative thinking, where many alternative ideas need to be brought to light with ease. Moreover, he states some useful general rules that could be helpful to anyone for an easier and more rewarding learning. For instance, one should be a good observer by paying close attention to all significant aspects of input information (what are its properties or attributes). In addition, one should be a good organizer by sorting out one's information and look for relations between items. Also, one should be a good transformer by letting one's organized items become flexible and ready to be modified if needed. Finally one should be a good deducer by looking for implications to information that is found and by making questions and predictions about them (Guilford, 1977).

People who relate to experiences or information in their mind can get a product of fantasy or creativity or invention. Nevertheless, if someone has a little of experience, knowledge or information, which means limited culture, then he will have a reduced fantasy, invention or creativity. Children's designs and paintings illustrate an enormous fantasy that is far away from reality. However, children cannot have fantasy because of their little experience, information and knowledge, but they project their own world (i.e., eating, crying, sleeping, talking to their mother, walking etc.) to anything around them. For a child who is not familiar with the external world yet, all things in his/her environment have the same characteristics as his/her own personal experience. For instance, the big ball is the mother of the small one. If the ball is dirty, it is because it has pooed. The ball is cold or hot because the child felt like this before (Munari, 1987).

In case we want a child to become a creative person with a developed fantasy, we must help him/her to memorize as much information as possible so that he/she is able to establish the maximum of relations among his/her information and to be capable of resolving any problem in his/her life. This strategy can be applied to all visual arts (drawing, painting, sculpture, cinema) (Barnes, 2015). Fantasy development requires to obtain knowledge and good memorization and we can succeed in obtaining knowledge and exercise our memory from the early years of education (by educators and family) (Barnes, 2015) (Munari, 1987). Finally, as Munari also claims in (Munari, 1987), a person without a developed creativity is an incomplete person whose way of thinking doesn't have the ability to handle the problems that will appear throughout life.

6.3 Session: 31/01/2017 – Project Work: Father's Day Gift

6.3.1 Observations

Session's Content and Objectives:

- Creating a clay figure
- Creating three-dimension forms into space
- Practicing the sculpting of figure forms
- Conceptualizing the father's figure

A guideline for the children's way of working and inspiration is depicted in Figure 60. The invited teacher Ms. Ninoska Trillo, puts a piece of cloth on the table and a toilet paper roll, with recycled paper wrapped around it. She gives one to each of the children. She also shares small amounts of clay. She explains that we should ensure the stability of our figure sculpture by paying attention to the process of developing the figure's main part of the body, which will be built around the toilet paper roll. After that, the children should create the five different parts of the body separately: eyes, nose, mouth, legs and arms. These parts of the body will be integrated with the main body. Everything is built piece by piece from the bottom to the top. Every time a new piece is put, it should be made even using a finger. While handling the clay for a long time, it loses its humidity. For this reason, the finger movements have to be fast. When all the parts are integrated with the main body, the children can start to paint their creation by using the appropriate colours for clay. After all this process is done, the pieces of art will stay in room temperature for 8 to 9 days until they dry and then they will enter in an appropriate oven at 1000 Celsius degrees for 9 hours.

Figure 60. Guideline given by the teacher Trillo

6.3.2 Students' Interpretation – Praxis

Figure 61. Boy – 9-year-old

Figure 63. Boy – 9-year-old

Figure 62. Boy – 9-year-old

Figure 64. Girl – 9-year-old

Figure 65. Girl – 9-year-old

Figure 67. Boy – 8-year-old

Figure 66. Boy – 9-year-old

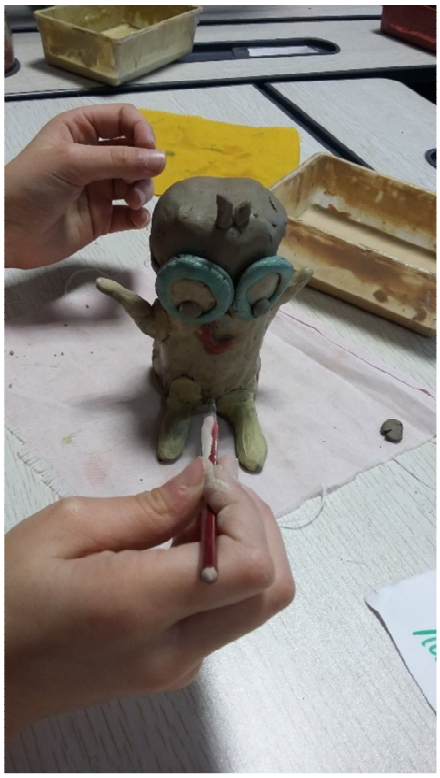

Figure 68. Girl – 8-year-old

6.3.3 Reflections

I noticed that in this session the students were very excited and focused on achieving the goal of the session. I think they were excited because they were introduced to a new artist Ms. Ninoska Trillo furthermore, they got work on sculpting.

In terms of difficulty to execute the artwork, I consider that they didn't face specific difficulties in the execution. This might happen because of the decision taken by the two teachers to join children in groups in such a way that one can see what the other is doing and thus be positively influenced. The creation of a sculpture was a new experience for children so it helped them work in large groups.

Related to this situation, Al Hurwitz and Michael Day argue that when the teacher intends to motivate the children, he should increase interaction by seating the children close together (Hurwitz & Day, 1995). Also, Guilford says that within the group there is also inter-stimulation, so that a person's idea instigates and improves another person's idea. Meanwhile, there is the social psychological phenomenon called "social facilitation", which means that people who see others performing the same task will work faster and better. Nevertheless, the teacher should be very careful with students who dominate the situation and whose views tend to prevail over the thinking of the other students (Guilford, 1977).

In general, the students were very collaborative with the instructions given by Ms. Ninoska Trillo. Especially, when they were advised not to touch the clay for a long time since it loses its humidity.

We can observe that almost all the eyes created by the students to be incorporated in the main body of the sculpture have a different shape. The legs also have been placed in different positions, showing the sculpture to in a variety of positions. Finally, the noses show a fantasy as they differ from those shown by the art instructor.

The children in this session learned that the clay does not absorb colours in the same way as the canvas or the paper, due to the difference between ceramic paint, regular acrylic or oil paint. In this specific case, the colours with which the clay sculptures were painted were made specifically for ceramics and as it is shown in the above figures they were in soft shades.

6.4 Sessions: 07/02/2017 and 14/02/2017 – Project Work: Canvas Gift for the Pediatric Hospital Joãozinho

6.4.1 Observations

Session's Content and Objectives:

- Submission of the deadline of the students' research project
- Geometric Shapes
- Cubism Movement
- Line Drawing
- Introduction to Historical Facts about Paul Klee
- A painting contribution Joãozinho - Hospital Pediátrico S. João

At this session, students are very excited and noisy. So, the teacher Fernanda must deal with this situation to proceed with the new plastic arts project. She asks the students to inhale through the nose 10 times and to stay in a comfortable position. She puts on some classical music and then she advises the children to close their eyes and to lay their heads on the desk for a while. When everyone is calmed down, the teacher takes the opportunity to introduce the objective of the new project. All the students should paint a small town in cubist style on a big canvas. When the canvas is finished, it will be given as a gift to the Pediatric Hospital São João in Porto, Portugal. The drawing and the painting of the canvas will begin by the next plastic arts session. Until then, the children should practice Cubism and discover the Swiss painter and musician Paul Klee.

Fernanda firstly recounts Klee's life and training, the style and methods of his works and his participation in exhibitions. She shows some slides and videos with his biography as well as some of his most important artworks. Then, she presents to them the amusing way Klee used to draw

The free process of "taking a line for a walk" made happy Burdened Children, showing the spontaneity that Klee associated with childhood. The Burdened Children drawing demonstrates the movement from a point to a line, and as a result creates flat surface forms. It consists of an almost unbroken line that forms a series of boxes joined together. Klee then added stick legs and eyes to give the shapes a human character. The heavy black might have been one reason for the drawing's title.

Figure 69.Burdened Children -Date: 1930-Media: Graphite, crayon and ink on paper on board-Dimensions: 650 x 458 mm

"I begin where all pictorial form begins: with a point that sets itself in motion." Paul Klee

Ms. Fernanda draws a figure face on the whiteboard of the studio. The challenge is to keep drawing without lifting her pencil from the board. She asks them to put their sketchbooks on the table and start practicing drawing in the same way. Later, the teacher projects on the wall Klee's painting Houses-and-Buildings (1927) and tells the kids to be inspired by Klee's manner of painting the houses and the buildings with geometric shapes and practice how to draw a cityscape using just a ruler and an eraser.

Figure 70. Fernanda's sample on the board

6.4.2 Students' Interpretation – Praxis

Students' sketches on their sketchbook imitating Paul's Klee Style:

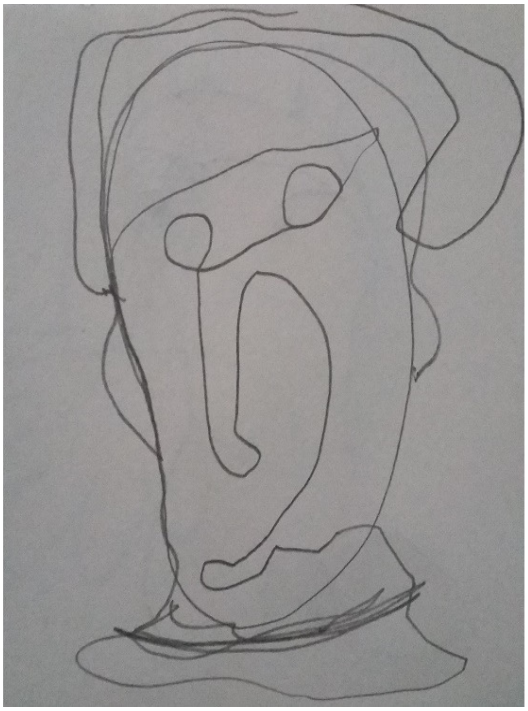

Figure 71 Boy – 8-year-old

Figure 73 Boy – 8-year-old

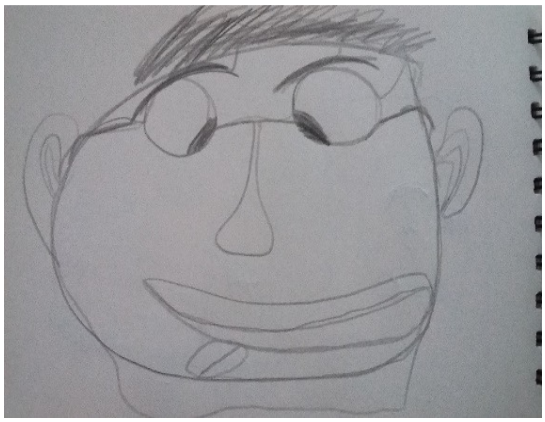

Figure 72 Boy – 7-year-old

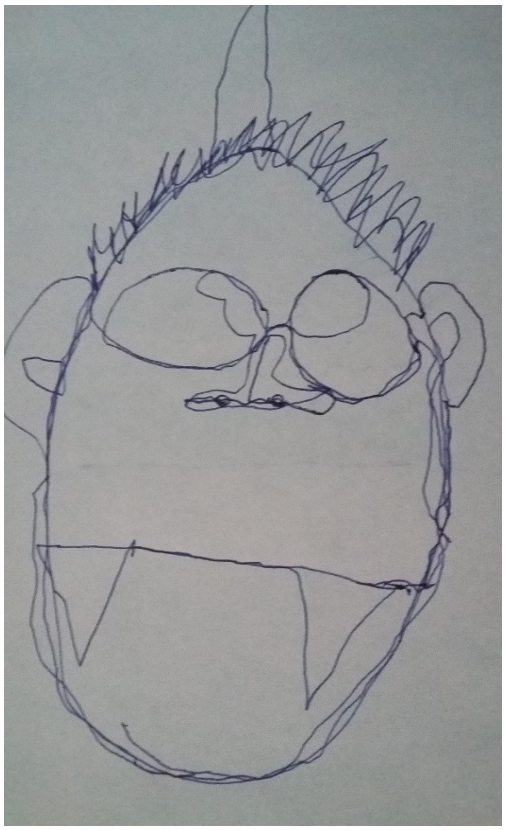

Figure 74. Boy – 8-year-old

Figure 75. Girl – 8-year-old

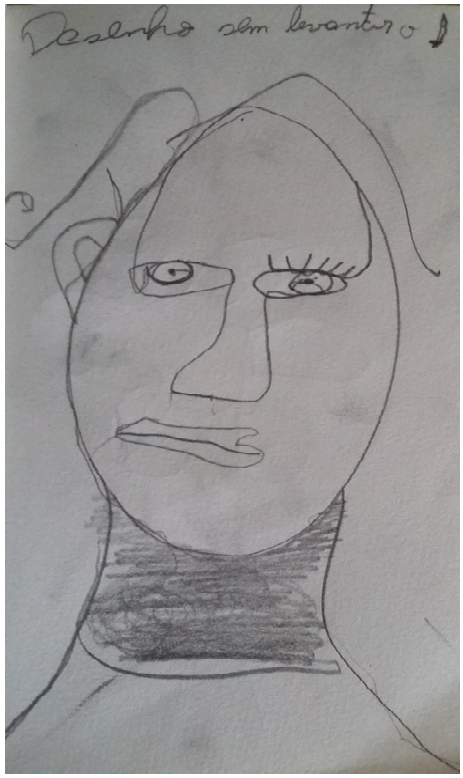

Figure 76. Girl – 8-year-old

The painting below was Projected on the wall in order to inspire children to practise cubism right after they finished with the technique of drawing from a point to a line.

Figure 77. Houses-and-buildings by Paul Klee, Date: 1927, Genre: cityscape, Media: oil, watercolour, paper, Dimensions: 32.5 x 24 cm

Some of the students' studies while practicing cubism are shown below, before they start painting on the final big canvas, an offer to the Pediatric Hospital.

Figure 78. Girl – 7-year-old

Figure 79. Girl – 7-year-old

Figure 80. Boy – 7-year-old

Figure 81. Girl – 7-year-old

Figure 82. Girl – 7-year-old

Figure 83. Boy – 8-year-old

Figure 84. Girl – 7-year-old

Figure 85. Girl – 8-year-old

Figure 86. Boy – 7-year-old

Figure 87. Girl – 7-year-old

Figure 88. Girl – 8-year-old

Figure 89. Boy – 7-year-old

Figure 90. The canvas drawn with charcoal by the students of the 1st, 2nd, 3rd and 4th grade of Colégio Oceanus

Figure 91 The finished canvas painted with gouache by the students of the 1st, 2nd, 3rd and 4th grade of Colégio Oceanus

6.4.3 Reflections

Those kids who kept concentrated while drawing, without lifting their pencils from their paper, succeeded in completing the challenge. Some of the children complained about the fact that they didn't have a ruler with them. At that moment, I tried to figure out creative ways to explain to them that they don't need to have a ruler to make straight lines but they should think imaginatively and maybe use the edge of a book or maybe one of their pencils in order to make straight lines.

Some of the students didn't realize the necessity to create all the lines using the ruler in this specific project. It is obvious that some of the lines of the drawings above are made without using a ruler, even though Fernanda made the importance of using one clear.

The submission deadline of the students' research project about the artists Rodin, Texeira Lopes, Soares dos Reis was on 7/2/2017. At the end of the art session there were penalties for the late submissions. This process was impressive. The majority of students had submitted their small survey before the deadline.

Before the beginning of this artistic session, the art instructor Ms. Fernanda was asked by the school's address to prepare a painting that would illustrate the city of V. N. Gaia in Portugal as a gift offered from the Colégio Oceanus to the Joãozinho Hospital in Porto. However, Ms. Fernanda did not give up the Father's Day Gift project, but in a magical way she made sure to link these two projects together to give the children the most information possible.

She found the Painting for the Hospital to be the ideal opportunity and the ideal project, to introduce cubism to the students, while inspiring the children with Master's Paul Klee artworks. Meanwhile, by introducing Klee's masterpieces related to cubism, she introduced Klee's interesting and amusing way of drawing a human face as well. This way, the children did not lose the flow of the previous project as they continued to further explore the human figure, and this time the human face, through Klee's artworks.

6.5 Sessions: 21/02/2017 and 07/03/2017 – Project Work: Father's Day Gift

6.5.1 Observations

Session's Content and Objectives:

- Observation of the human figures – practicing drawing human figure forms
- Exploration of the colour and the line
- Exploration of different mediums (graphite pencil, charcoal pencil, dry pastels)
- Preparation for the exhibition on Father's Day

The teacher began the session by asking the students why it might be important to learn how to draw the human body. Children didn't seem to understand this question. I took the liberty from the teacher Fernanda to explain to them that if one day they wish to become doctors, such as oncologist, orthopedic, or any other type of specialization, they should know each part of the human body very well. They should be able to sketch the main parts of the body in order to explain anything to a patient or to study for themselves. It is not about being a master of drawing the human body, but to at least be aware of the main shapes of the human body. Another occasion is when we exercise our body, since we need to keep the form of the human body in mind. In this way, we will not hurt ourselves while we exercise and we will be able to move in the right way. Another common example is when someone goes for a test drive in a car in order to buy it. In this case, he/she needs to know his/her body proportions. This will help him/her choose the right car. These are ordinary necessities of each individual person.

Secondly, the teacher asks the children to proceed with their drawing by putting a piece of paper in front of them, vertically. She asks them to draw two human figures which will represent their father's figure, using graphite pencil. Afterwards, the students should trace out the two figures with charcoal pencil. Lastly, they should use dry pastels for painting.

In this session, children have to practice drawing the human body, but at the same time they will have to reflect on the figure of their father through their personal interpretation.

6.5.2 Students' Interpretation – Praxis

Two or One Studies for the father's figure:

Figure 92. Boy – 8-year-old

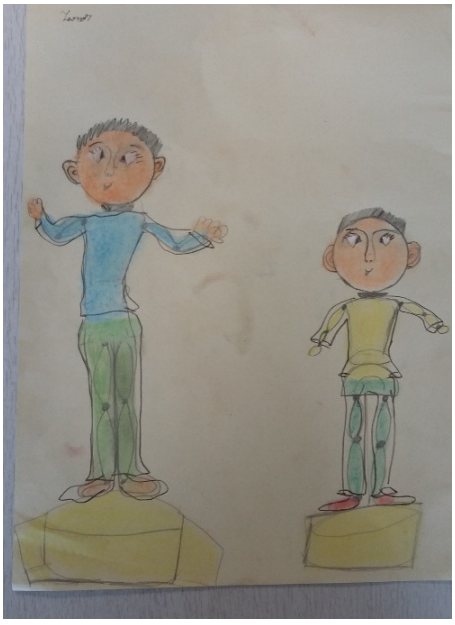

Figure 93. Girl – 8-year-old

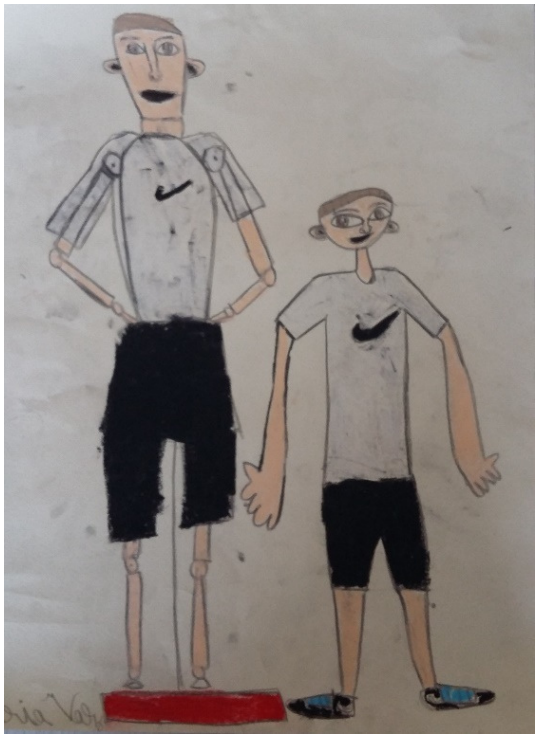

Figure 94. Girl – 10-year-old

Figure 95. Girl – 8-year-old

Figure 96. Girl – 8-year-old

Figure 97. Boy – 8-year-old

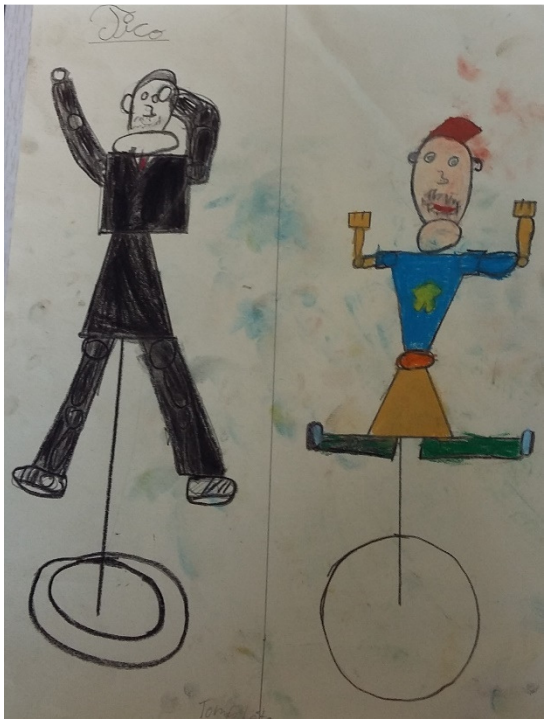

Figure 98. Boy – 8-year-old

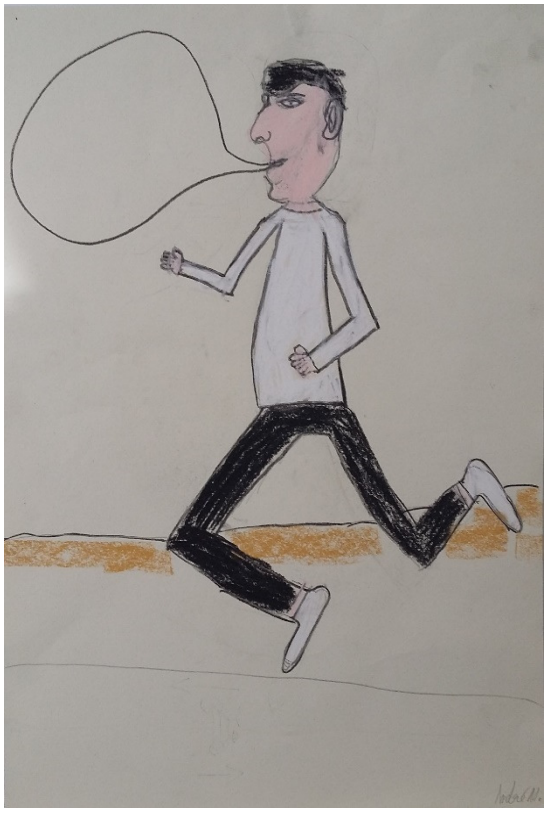

Figure 99. Boy – 9-year-old

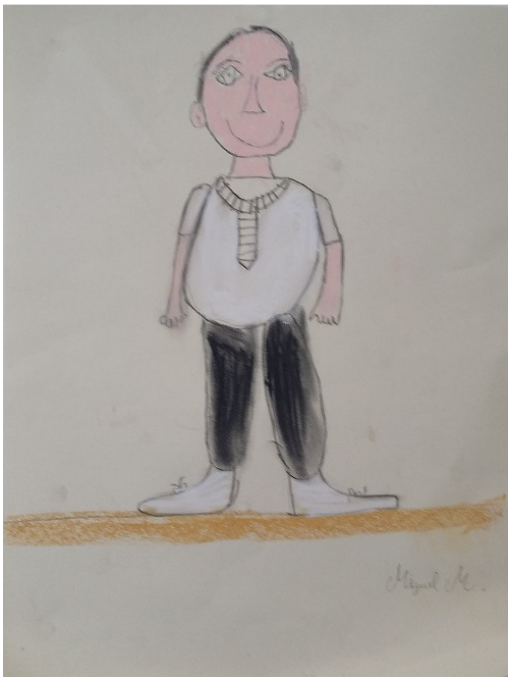

Figure 100. Boy – 9-year-old

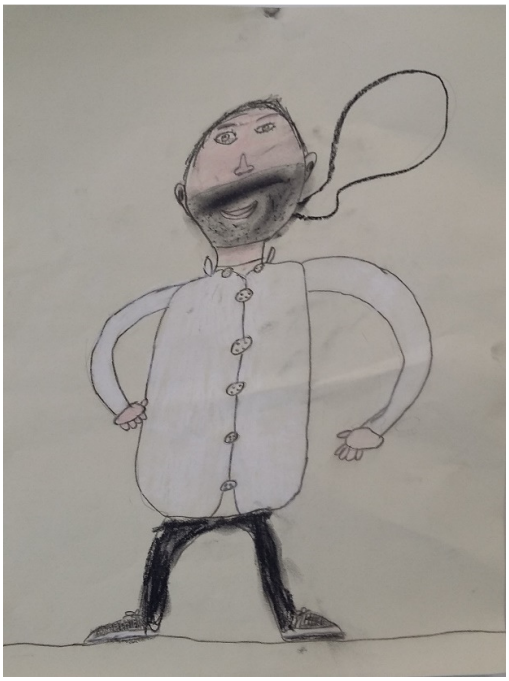

Figure 102. Boy – 9-year-old

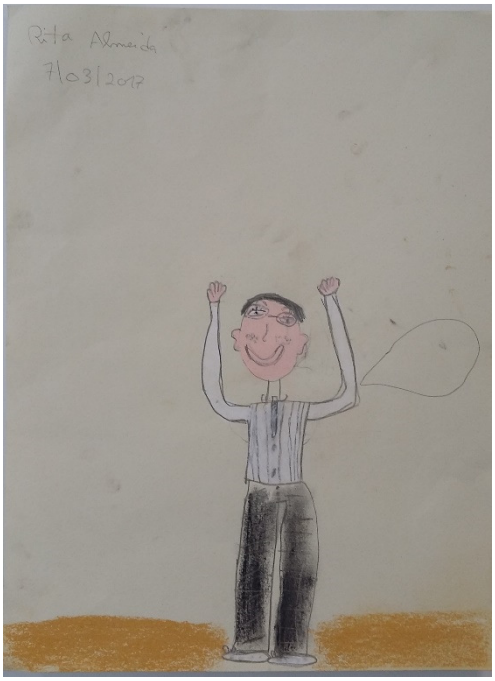

Figure 101. Girl – 10-year-old

Figure 103. Girl – 9-year-old

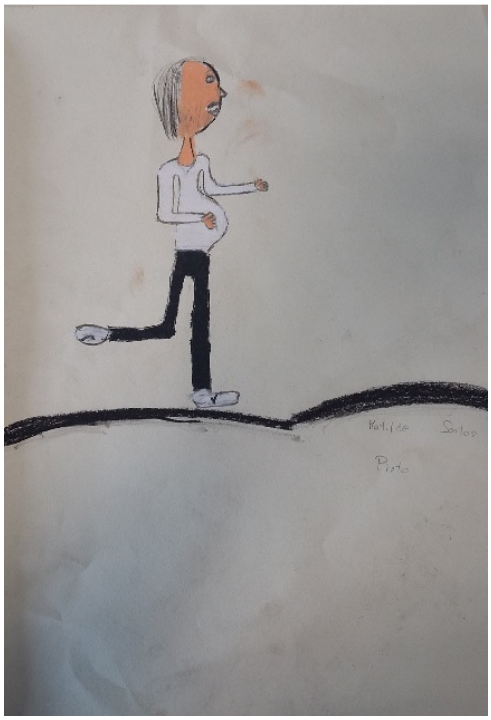

Figure 104. Girl – 9-year-old

Figure 105. Girl – 9-year-old

6.5.3 Reflections

In this session, Ms. Fernanda told the third grade students, who had class before the student of the fourth grade, to practice on drawing two human figures on the same paper, as it is depicted in Figures (92, 93, 94, 96, and 98). The fourth grade students were told to practice only one human figure on the paper using: black colour pastel, white colour pastel and skin colour pastel, as it is depicted in Figures (99, 100,101, 102, 103, 104, and 105).

I believe that was the teacher's estimation after she realized that the children in the 3rd grade were quiet and seemed concentrated, while the fourth grade students were anxious to finish the project on time. I consider that Ms. Fernanda knew how to adapt her teaching methods according to the students' mood since, in that day, the fourth grade was very crowded.

The Figure 95, depicts a drawing by a student of the third grade. She managed to separate her paper into two parts, however, she decided to draw only one human figure, in a larger proportion than her classmates' drawings.

There were many times throughout the process that when teacher made the children aware that the shape of the human face is mostly oval rather than circular.

When the children started drawing, some students encountered difficulty with this concept. In the first case, I asked the student what exactly was his problem. I wanted to understand if he was capable of identifying his problem in relation to his artwork. He complained that he was not able to draw the ears upon his father's figure. The form of the face of his figure was done. So, firstly, I advised him to observe his classmate's face and try to figure out where the ears stand compared with other parts of the face. We asked his classmate to tie up her hair so that her face's proportion would be more visible to us. I demonstrated to him that the top side of his classmate ear begins at the same height of her eyes and ends at the same height of the upper line of her lip. The student looked at her face in a detailed and careful way and started drawing the second ear confidently. When he drew the first ear, he pressed his graphite pencil too hard and when he tried to erase it and redraw, there were marks from the previous drawing. At that point, I suggested that, before determining his drawing, he could draw using dots while gently holding his pencil. I think that this student's problem was about learning how to observe.

In the second case, a female student complained that she did not know from where to begin drawing on her paper. I explained to her that the best way is to leave a bit of space on all sides of the paper. After that she should think that teacher Fernanda's criteria was to draw two human figures, so she should try to divide her paper in the middle so she has enough space for each figure. However, the student continued having a negative attitude and drawing nothing. At that moment, I thought that she was not motivated enough. I mentioned her that I have seen her to get engaged with other art activities with passion and successfully. She should at least try to represent her interpretation and if she feels like facing a problem while drawing I would help her. I think that this student needed much more to trigger her self-confidence rather anything else, as when she felt motivated she started drawing having no problem.

In (Guilford, 1977), Guilford has argued that even if someone has high status in abilities relevant for creative production without motivation to use those abilities, creative output may be very slight. The creative people must be driven with curiosity. An attitude of curiosity and furthermore of motivation can lead to problem solving. The productive people must be also in control of self-discipline. Guilford describes that in a study of inventors, Rossman had found that the leading source of satisfaction was often intrinsic to solving the problem itself. Particularly, some inventors had only just solved one problem when they immediately looked for another one, in order again to achieve that feeling of mastery, the satisfaction that can be acquired from solving problems.

According to (Hurwitz & Day, 1995), there are two different **motivations**. The extrinsic motivation, which consists of forces external to the child such as contests and grades and influence the child's level of motivation, and the intrinsic motivation, which deals with internal standards and goals, such as the child's recognition to have value, for example the desire to perform well. The teacher should strive for the long-term gains of the student and concentrate on the intrinsic sources, which are far more valuable to the child's development in the long run. From the moment that the instructor decided on the source of motivation, he should find out the most effective way to engage the student with the artistic activity (subject) using the student's experiences with the provided materials. In other words, the instructor should be sensitive to the variables of the situation (subject, material, techniques, experiences, etc.) in order to capture the attention of the class. The teacher may decide to focus on the excitement of untried materials, he/she may introduce the lesson with a new film, he may engage the class in a lively discussion or bring in an animal or unusual still life, he can plan a field trip, invite a guest speaker, demonstrate how a particular skill might be used or use an artwork to build his/her students' art vocabulary. In some instances, several ideas may be combined in the same lesson.

Observing Munari's diagram below in Diagram 2, it is possible to understand that we can acquire Imagination while developing our memory. According to Munari, **Imagination** entails **production**. Finally, the most important conclusion of all is that by being productive we can understand the external world (Munari, 1987).

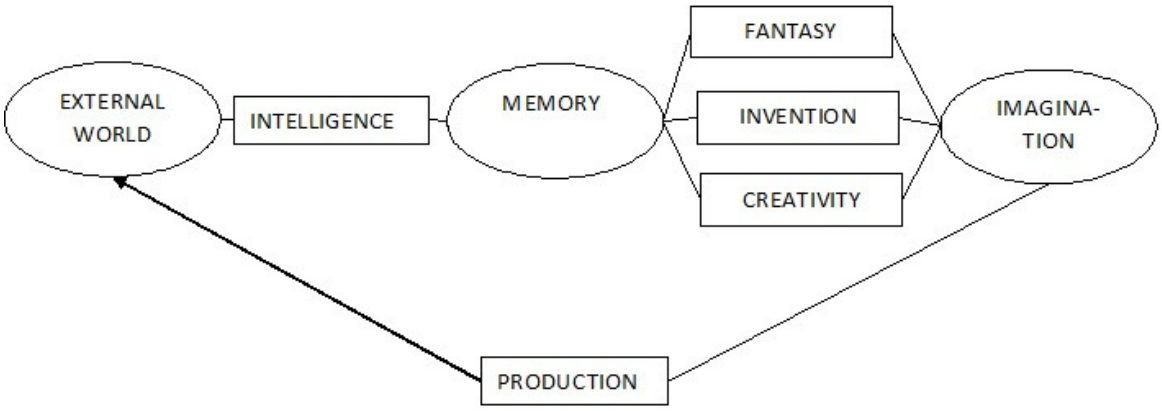

Diagram 2. Munari's Diagram related to Imagination (Munari, 1987)

According to Munari (Munari, 1987), imagination is the medium for visualizing the thought of fantasy, invention and creativity. Each one of us has different degrees of Imagination. If someone thinks that many important contributors from the domain of arts, sciences and philosophy (such

as Vygotsky, Albert Einstein, Jean-Jacques Rousseau, Pablo Picasso) believed the imagination is a fundamental skill to understand the world, art activities in schools are fundamental for the development of the student's memory and to further their gestalt development. When Munari defines imagination, he uses the definitions of fantasy, invention and creativity.

Fantasy is the freest ability of all. A fantasy's product might not have functionality and practicability through the process, but when people have fantasy they also have the liberty to think about anything even if this is absurd, incredible or impossible. Like fantasy, invention is also a capacity.

But the product of invention has developed through a practical process. Invention uses two different experiences that someone has and the relation of these two experiences through a practical process to get a product. Someone can invent a material, an instrument, a chemical formula. The inventor is not concerned with the aesthetic aspect of his/her product but he is concerned if his/her invention has a real function and is useful for any kind of utility. To invent means to think about something which didn't exist before. On the contrary, to discover means to find out about anything that you were not aware until now, although it existed before you find out about it.

Creativity is a function. Both the fantasy and the Invention give an objective to creativity and then creativity has to function. While fantasy works as an Image and Invention works as a function, creativity has many different aspects. Creativity takes into account psychological, social, economic, and human aspects. Munari presents some simple strategies of thinking with fantasy (Munari, 1987):

1. To think about an inverted situation inverted. In other words, to turn something upside down or change the order of things.
2. To think with repetition without modification. Or to think with variety.
3. To think between visual connections.
4. We can establish relations under the definition of change or substitution. For instance, we could substitute the colour, the weight, the material, the position, the function, the dimension, or the movement of an object, subject or situation.

After having connected various objects, subjects or situations, and getting the final product of this process, we can transform the final product in another unique one. Of course, this entire strategy can be applied to all visual arts (drawing, painting, sculpture, cinema). Bruno summarizes by

explaining that fantasy development is required to obtain knowledge and good memorization and we can succeed in obtaining knowledge and exercise our memory from the early years of education (by educators and family). Munari claims that a person without a developed creativity is an incomplete person whose way of thinking doesn't have the ability to handle the problems that will appear in his/her life (Munari, 1987).

"The world of reality has its limits; the world of imagination is boundless" Jean-Jacques Rousseau

In this session, another case was when student asked a way to draw a tie. The explanation was to simplify the tie into three triangles and one rectangle.

Figure 106. Simplification of a tie

Another female student dealt with many difficulties. That was the reason why she started to create later, so the teacher allowed her to draw only one father figure instead of both. She was another example of a student who had no idea how to start. So, I firstly suggested to her to put the whole figure in the centre of the paper and to start drawing the head. She complained that she was not capable. I took her hand and put it on my face. I wanted her to feel my face proportions. Firstly, we kept looking and touching each other's faces and then we started discussing about the sequence of the head's parts from the top to the bottom. After drawing the hair, she drew the eyes without letting enough space for the forehead while she continued with the eyes. After a while she understood that the eyebrows are below the forehead and then follow the eyes. I realized that she started being autonomous and self-confident. Then she drew the nose by herself. Until that moment, she seemed very excited learning through a unique experience of

exploring her own face and mine. I felt that she had the potential to advance her skills and perceive the way of drawing a nose in a more realistic way. Thus, I explained to her that the bones of our nose start from the height of our eyebrows making a small triangle, and end a bit above the height of the ears. She was constantly very concerned with perfecting everything she had been drawing but I made her aware that drawing a human face is a complex process and in the very beginning there is no need to focus that much on the details, instead we must look at our drawing holistically. Besides, in a while she would need to think where exactly do the ears stand and always be in a process of measuring the proportions. For sure, a man's face and body proportion differs from a woman's or a child's one but at that moment it was important for her and for all the students to observe, feel and understand the parts of the human body and to create a method of thinking and representing their own face and body.

Figure 107. Face proportions – sketch - sample

Another situation, by a female student, was the position of the neck. She had drawn the neck of her father's figure at the same height as the mouth. When we tried feeling our neck in relation to the other facial parts, she perceived that the neck was at the height where the eyes finish. For that student it was very helpful to finally draw all those imaginative vertical and horizontal lines upon the face in order to understand where each part stands.

6.6 Final Reflections of the Sessions

All the projects, which I closely observed next to the art instructor Ms. Fernanda, had a common feature. Each time Fernanda managed to ignite children's curiosity in different ways. Consequently, creativity began to appear through the practical procedures that followed, such as painting, drawing and so on. The children feel released and begin to interpret every object around them in a different way, in a different context. The objects, which until now had a practical symbolism, become ideas and can fit into children's artistic projects.

It is also impressive that each session of those that I observed raised different concerns both from the student's side and from the teacher's side. The child is always full of doubts and the teacher must always be ready to give answers. I felt that the doubts and concerns which come through the action of creation never come to an end.

6.6.1 The Sketchbook in the Art Classes

Usually Fernanda begins her classes by asking the students to put on the desks and to use their sketchbook. She claims that since the age of three, students already have the ability to illustrate their drawings in the sketchbook, as they have already learnt how to write using the pencil. She says that through this practice students learn to value their illustrations and learn to focus on anything they consider important in the determined subject of each session. In the sketchbook, they perform different actions in which they create or explore a drawing with two different types of lines, or maybe two different colours, or play with the letters of the subject's name of the session in a fun way. This initial activity in the class allows the children to acquire the desire of action. They must start dealing with the concentration and must proceed with drawing in their own unique sketchbook. The interpretation of the lines of a certain object, whether it is a small-scale drawing or a sketch type of drawing, allows the student to assimilate a work method. This process will teach the child to observe and not just look. Usually people see, but do not observe. Fernanda cited the example of a bunch of grapes that were close to her. Those grapes can be drawn with lines, but these lines cannot be traced rigidly because they are movable. The fact that we are able to observe this fruit, and everything else that we are able to observe, gives us the opportunity to be aware of any property around us. Everything that we see and that allows us to understand and remember new information and make it part of our basic knowledge so that we can use it as our own. The process of learning happens individually with our own senses, mainly

through vision and feeling. The fundamental key to a child's harmonious and successful growth is to observe, interpret and feel determined forms, colours and movements.

The students are obliged to hold the sketchbook with them in every session. The objective of this duty is to challenge the students to sketch something simple every time, in order to always become inspired in the art classes and to be able to draw at home. Fernanda always tries to trigger their observation through the artistic activities so that they are always challenged to observe and create quick sketches. This is one of Fernanda's ways to make children familiar with the habit of demonstrating their ideas and their projects.

6.6.2 Exhibiting Students' Artworks

During the time, I attended the art session of the art instructor Ms. Fernanda Santos, the pupils mostly focused on the execution of projects that were theme-based on the curriculum calendar such as the Father's Day Gift. Each project did not end in the first session, instead it was a time-consuming process of perhaps three months' duration. Through this process, the children firmly start to perceive how they will successfully proceed with the accomplishment of each demanding session. Each time the project is completed with the organization and presentation of an exhibition that takes place in the school building, in an outside institution or in a museum of the city.

In the case of the Father's Day Gift, project the students started to perceive the human figure in the space and the human's figure movements through studies of drawing, sketch and painting. The students started to do studies around the mannequin and taking inspiration from sculpture masterpieces created by Portuguese Masters of the art such as António Teixeira Lopes and António Soares dos Reis. They continued analyzing the form and the light learning through the Master Auguste Rodin. However, the students did not limit themselves to studies about the two-dimensional illustration of the movement but also got engaged in the experiences where they explore the three-dimensional form of the corresponding project. Obviously, the art instructor Ms. Fernanda Santos makes a great effort to enhance the perception of the child by bringing him into contact with as much approaches of the human figure as possible, through the mediums of painting, drawing and sculpture. Finally, all the studies and the finished works are exposed and there is a large exhibition where professors, students, parents and the public are invited to visit the artworks created by the young artists as it is depicted in Figure 6, Figure 7 and Figure 8.

I believe that the organization of exhibitions at the end of each project is a motivation for the children during the process of producing their creations. During the art session in the studio, children are encouraged to generate their own ideas in response to studying a problem. They are taught to look, understand, judge and then produce a physical object that addressed the issues they wanted to explore. So, the exhibitions are events specifically dedicated to the young artists where they are given the opportunity to show to teachers, parents and themselves that they perceive the world in their own eyes. Interpreting the world in their own way, in my opinion, is of great importance if we think that life is uncertain and there never is a single answer for anything. All things need to be considered, and different points of view are certain to emerge. In addition, for every older and younger artist, the studies are a way to understand the problems related to the information given by the art instructor and to plan the elements to be used in finished works.

6.6.3 The Visual Arts Activity as a Process of Facing Various Issues

At a first glance, one might consider that through the art classes children just learn to create art forms, handle a variety of materials and learn art history. But making art is not just about striving to achieve visible aesthetic forms. Each art project that the children execute is a complete process. Someone who observes the artistic activities while they happen in the studio can realize incidents that happen, such as difficulties that the students face, doubts they might have, luck in generating ideas, low self-esteem and so on. Throughout this process, the teacher's contribution and support is very important.

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7 Conclusions and Future Work

Before the beginning of my internship in Colégio Oceanus, V. N. Gaia, Portugal, as **participant observer** in the artistic sessions designed by the Art Instructor Ms. Fernanda Santos, I was advised by my supervisor Professor Inês Maria Henriques Guedes De Oliveira to study the theoretical background including the main references (i.e., Eisner, Arnheim, Gardner, Efland, Winner) of Ms. Fernanda Santos' background teaching process. This theoretical background corresponds to the connection between artistic and cognitive development and it was presented in the second chapter of this thesis report.

During my participation in the visual arts activities at Colégio Oceanus and specifically as participant observer, I provided assistance (i.e., to discuss, to answer questions, to advice) to those students that I realised were facing problems raised in the course of the artistic sessions. My observations were the following:

- Students, through the artistic sessions, were taught to observe the forms that they should interpret and then transmit these forms to a 2D surface or a 3D object. In other words, students developed their observational skills to solve issues while drawing.
- They acquired imagination, as they became aware of the way the ideas emerge. By gaining knowledge from visiting exhibitions, reading relevant books, doing Socratic discussions, learning about new artists etc., students can be led to a more creative thinking way that will enable them to address problems.
- Often, it became obvious, through the artistic sessions, that students were not motivated enough so they were incapable to come to an end with the artistic projects. The Art Instructor in these cases had a crucial role to trigger students' curiosity so that they could be stimulated. It is worthwhile to mention that this observation is aligned with Guilford's argument that even creative and capable people are not productive if they have no motivation.

Finally, my participation in the visual arts activities at Colégio Oceanus and specifically as participant observer allowed me to realise that I am highly interested in exploring creative ways, through creative play or actions, in order to trigger children's curiosity. Thus, as a future work, we plan to study the design of creative activities (e.g., drawing, painting, woodworking, printmaking,

textiles and fiber arts, ceramics, etc.) to encourage children to be autonomous and confident so that they can address issues in their life.

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Appendix

Artists

Auguste Rodin (1840 – 1917)

The great French sculptor Auguste Rodin (1840-1917) was born in the same year as Monet. He is known as a pioneer of modern sculpture. He had a difficult time in school, so he'd draw pictures instead of doing his work. At age 14, he entered a school of decorative arts and then got a job doing decorative stonework. But Rodin wanted to be an artist. He applied to the most famous art school in Paris three times. They rejected him three times. When he was 22, he was so upset when his sister died that he decided to give up art and become a monk. The Father Superior told him he was making the wrong choice. He convinced Rodin to go back into the world and become an artist. Rodin began making sculptures. Besides the fact that he studied Michelangelo's work as well as ancient Greek and Roman sculpture (ideal beauties), he tried to create sculptures that looked realistic. Like the impressionists, Rodin disliked the outward appearance of "finish". Like them, he liked to leave something to the imagination of the public. Sometimes he even left part of the stone untouched to give the impression that his figure was just emerging and taking shape. For the majority of people, that was an absolute manifestation. He often took years to make one sculpture. Sometimes he sculpted more than a dozen heads in one day, then trashed them all before he went to bed. He wanted his sculptures to look alive. When he firstly exhibited his sculpture the public thought it was as realistic as a live model. Rodin used to sculpt with the two basic ways of creating a sculpture. In the first way, the artist carves, chips, or takes away from a block of material until the sculpture "appears." In the second way, the artist "builds up" the sculpture using wire and clay. To make the sculpture last a long time without cracking, metal is poured into a clay mold to create the same shape as the clay. Rodin received a commission by the French government to create a bronze door for the future Museum of Decorative Arts in Paris. The bronze door should be prepared until 1884. However, Rodin's death in 1917 prevented the completion of that great piece of art. The very first idea of the door's concept was inspired by the 15th-century doors of the Italian sculptor Lorenzo Ghiberti, the "Gates of Paradise" doors for the Baptistery in Florence. But the original concept of the door changed in 1881 when Rodin was invited to London by the painter Alphonse Legros. There Rodin saw the many Pre-Raphaelite paintings and drawings inspired by Dante's the epic poem "The Divine Comedy". Thus, Rodin called his bronze door "The Gates of Hell". He transformed his plan for "The Gates" to one that

would reveal a universe of forms with uncontrolled movements caused by love, pain, and death. At the top is the "Figure of Dante" bent over in thought, reflecting on hell below. Rodin decided to turn this figure into a larger sculpture called "The Thinker". "The Thinker" was modelled in clay and later casted in bronze. Rodin did many castings of the statue and since his death many more have been made (Gombrich, 1995).

Paul Klee (1879 – 1940)

The Swiss painter and musician Paul Klee was one of those artists who continued where Cezanne had left off. He admitted that what matters most in art is to find new solutions for what are called problems of "form". For Klee "form" always came first and the "subject" second. He became impressed by the experimentations of Cubists when he was in Paris in 1912. After that, he was inspired to play with various possibilities of form. In a lecture at the Bauhaus, Klee explained how he started relating lines, shades and colours to each other in order to create balance. He also described that by imagining a real or a fantastic object, the forms were gradually created. So in a way, it was like he had found out the image. He was convinced that this way of creating images was more "true to nature" than any copy. Besides, Klee admired the art of children. In his own work he often strove for imaginative childlike creations that exude simplicity and directness. He was inspired by the natural world, the human behaviour and meaningless incidents of everyday life. He worked on a small scale, creating microcosmic worlds in drawings, watercolours and oils. Many modern artists, who share Klee's faith in creative nature, agree that the work should be allowed to grow according to its own laws. This method recalls our doodles, when we let ourselves be surprised by the outcome of our idle pen games.

António Teixeira Lopes (1866 – 1942)

António Teixeira Lopes (1866 – 1942) was a Portuguese sculptor. He started learning the art of sculpture in his father's workshop, José Joaquim Teixeira Lopes who was a sculptor as well. In 1882, he entered the Academy of Fine Arts (Escola de Belas Artes) in Porto, Portugal where he continued his education with celebrated artists like the sculptor António Soares dos Reis and the painter Marques de Oliveira. Three years later, he left for Paris, where he entered the École des Beaux-Arts and became an admired student. In 1985, both him and his brother the architect José Teixeira Lopes built António's atelier in Vila Nova de Gaia, which nowadays houses a museum (the Casa-Museu Teixeira Lopes) dedicated to his work. He was also professor of the School of Fine Arts of Porto for many years. Teixeira Lopes dealt mostly with allegoric, historical and religious

themes, working with materials such as clay, marble and bronze. His work takes places into public spaces, palaces and churches in Portugal.

António Soares dos Reis (1847 – 1889)

António Soares dos Reis (1847-1889) was a Portuguese sculptor. He studied and graduated in sculpture in 1867 from the Portuense Academy of Fine Arts. From 1867 to 1870 he studied at the École des Beaux-Arts in Paris, where he strived some prizes. From 1871 to 1872 he studied in Rome as well. In Italy, he executed his finest work, in Carrara marble, the acclaimed "O Desterrado" ("The Exiled"), a touching image of neoclassical, romantic and realist resemblances, that is the masterpiece of Portuguese sculpture. After returning to Portugal, he returned to Porto, where he taught at the Portuense Academy of Fine Arts. He committed suicide, aged only 41. He is considered, one of the leading names in Portuguese realist sculpture. There is a room dedicated to him at the National Museum Soares dos Reis, in Porto, which comprises the finest collection of his artworks, including "O Desterrado" and the touching and kind figuration of the "Count of Ferreira" (1876).